

**Supplementary files Rotaru et al., EES 2013,
Supplementary figures**

Figure S1. Work flow of metatranscriptomics analysis

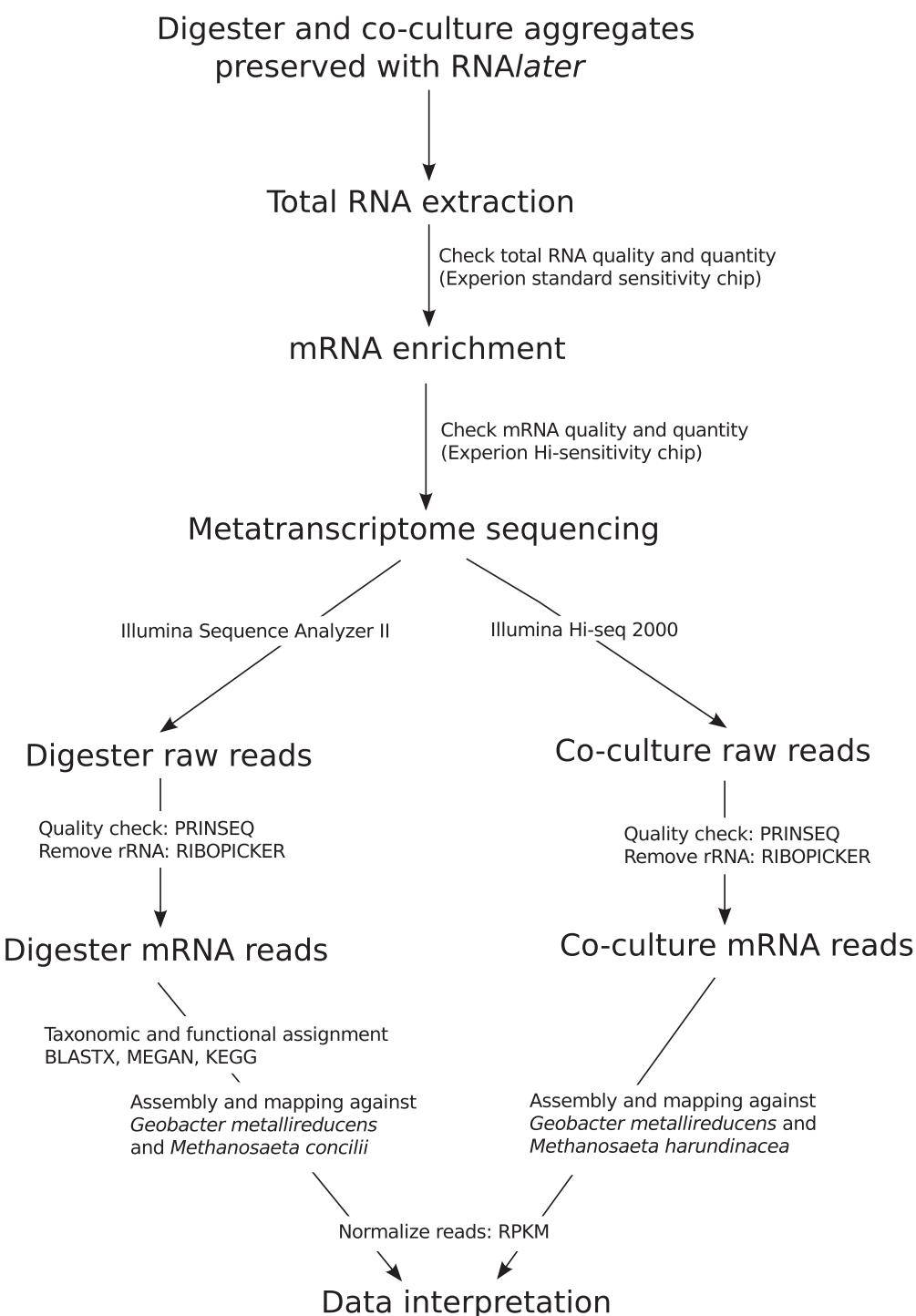


Figure S2. (a) Scatter plot comparison of gene expression levels in replicate co-cultures and (b) digester aggregates. An example of how the median \log_2 RPKM value was calculated for c) *G. metallireducens* and d) *M. harundinacea* in co-culture. Each data point on the scatter plot represents an individual gene and is plotted based on its expression level.

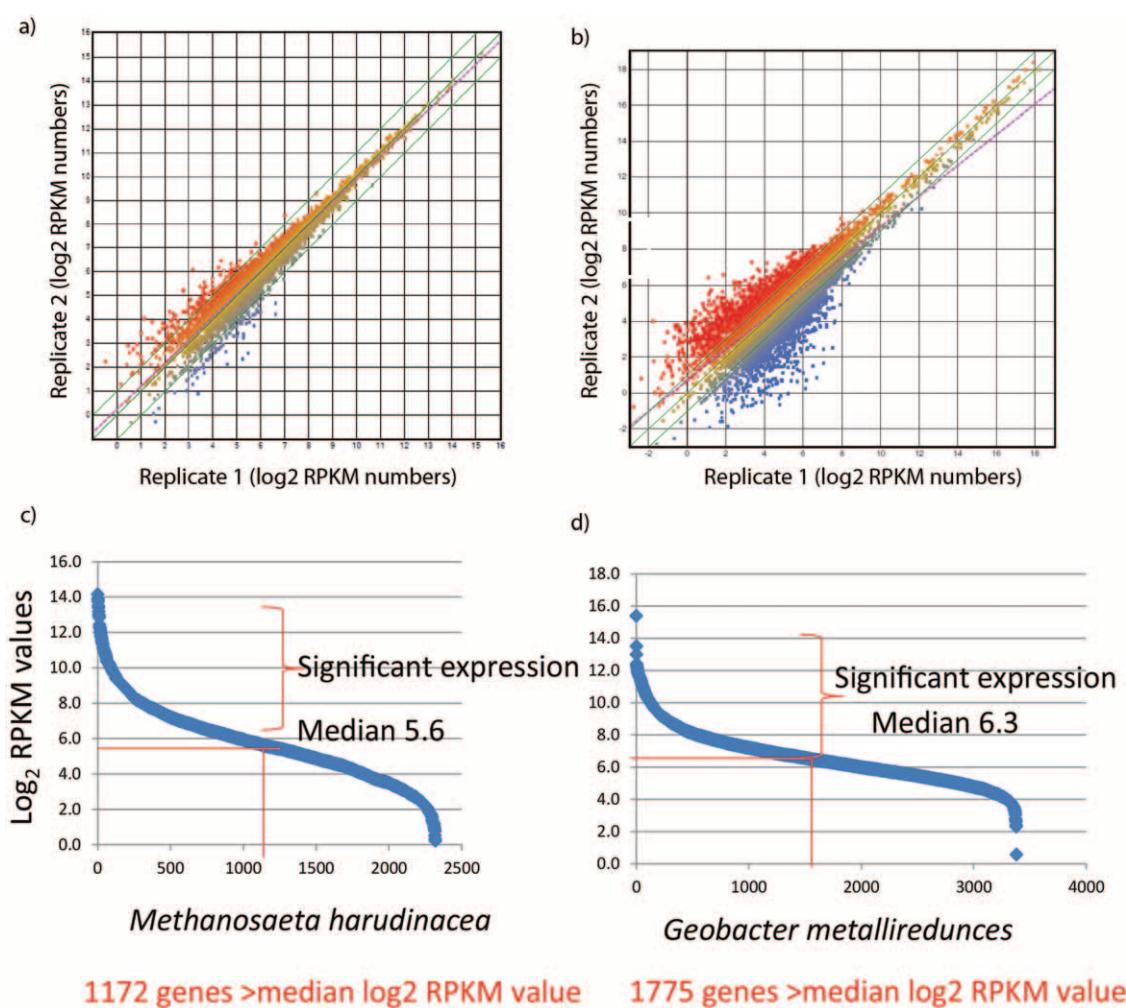


Table S1. Assembly statistics of reads from digester and *G. metallireducens* – *M. harundinacea* co-cultures. Digester and coculture sequences were assembled with mers of 15 and 21 nucleotide length, respectively.

Experiments	Template genomes	Total number of reads with mer hits	Unique reads assigned
Digester	<i>Methanosaeta concilii</i>	6.82×10^6	8.18×10^5
	<i>Geobacter metallireducens</i>		2.36×10^5
Co-culture	<i>Methanosaeta harundinacea</i>	4.47×10^6	1.04×10^6
	<i>Geobacter metallireducens</i>		1.65×10^6

Table S2. List of genes belonging to *Methanosaeta concilii* and *Geobacter metallireducens* and their normalized expression levels. Data is representative of duplicate reactor samples.

Table S2a. List of genes belonging to *Methanosaeta concilii* and their expression levels. Transcript reads that have \geq median log2 RPKM values (5.4) were taken as the threshold for the significant expression level.

/product	/gene	RPKM values (log2)	/locus_tag	Median
transposase, IS116/IS110/IS902 family		16.31221	MCON_0214	<u>5.4</u>
hypothetical protein		14.35657	MCON_0061	
transposase, OrfB family		13.43878	MCON_2070	
hypothetical protein		13.1647	MCON_1017	
hypothetical protein		12.34965	MCON_2634	
hypothetical protein		12.21741	MCON_2970	
S-layer-related duplication domain-containing protein		11.86336	MCON_1153	
methyl-coenzyme M reductase subunit beta	mcrB	11.83885	MCON_0762	
methyl-coenzyme M reductase subunit alpha	mcrA	11.79394	MCON_0759	
hypothetical protein		11.73491	MCON_3343	
methyl-coenzyme M reductase operon protein D	mcrD	11.52672	MCON_0761	
hypothetical protein		11.33363	MCON_2286	
hypothetical protein		11.32768	MCON_2346	
lipoprotein		11.26462	MCON_3345	

ferredoxin			11.25834	MCON_2094
methyl-coenzyme M reductase subunit gamma	mcrG		11.17912	MCON_0760
V-type ATP synthase subunit E	atpE		11.15253	MCON_2519
hypothetical protein			11.12863	MCON_1609
hypothetical protein			11.02598	MCON_1140
hypothetical protein			10.98681	MCON_0892
hypothetical protein			10.97082	MCON_0114
transposase, IS605 OrfB family			10.95873	MCON_0329
periplasmic copper-binding protein			10.789	MCON_1359
acetyl-coenzyme A synthetase	acsA		10.78094	MCON_0559
hypothetical protein			10.53169	MCON_2227
hypothetical protein			10.42329	MCON_0190
hypothetical protein			10.35388	MCON_0840
hypothetical protein			10.34593	MCON_2966
hypothetical protein			10.34559	MCON_1954
membrane protein			10.33752	MCON_0490
hypothetical protein			10.3362	MCON_3052
ATP synthase C subunit, lipid binding protein	atpL		10.26828	MCON_2520
CO dehydrogenase/acetyl-CoA synthase complex				
subunit beta	cdhC		10.23923	MCON_1330
acetyl-coenzyme A synthetase	acsA		10.04916	MCON_0558
CO dehydrogenase/acetyl-CoA synthase complex				
subunit gamma	cdhE		10.03551	MCON_1325
acetyl-coenzyme A synthetase	acsA		10.02975	MCON_0561
tetrahydromethanopterin S-methyltransferase				
subunit H	mtrH		9.94803	MCON_1068
CO dehydrogenase/acetyl-CoA synthase complex				
subunit alpha	cdhA		9.94549	MCON_1332
hypothetical protein			9.93153	MCON_2431
hypothetical protein			9.90347	MCON_0210
V-type ATP synthase subunit H	atpH		9.8703	MCON_2522
transposase, IS605 OrfB family			9.80801	MCON_0180
hypothetical protein			9.76658	MCON_1136
CO dehydrogenase/acetyl-CoA synthase complex				
subunit epsilon	cdhB		9.76304	MCON_1331
cyclase family protein			9.63698	MCON_1407
hypothetical protein			9.62741	MCON_0438
hypothetical protein			9.61707	MCON_2459
cold shock DNA binding domain-containing protein			9.61182	MCON_2463
transposase, IS605 OrfB family			9.59503	MCON_1258
hypothetical protein			9.58476	MCON_1141
DNA-binding protein Alba	albA1		9.57449	MCON_2024
hypothetical protein			9.55728	MCON_1139
hypothetical protein			9.52934	MCON_0627
hypothetical protein			9.50762	MCON_1853
universal stress protein			9.49198	MCON_2642

molybdenum cofactor synthesis domain-containing protein		9.47683	MCON_2884
lipoprotein		9.41936	MCON_1379
tetrahydromethanopterin S-methyltransferase			
subunit E	mtrE	9.3828	MCON_1075
hypothetical protein		9.35442	MCON_0525
hypothetical protein		9.33406	MCON_2917
major facilitator family transporter		9.33383	MCON_1207
hypothetical protein		9.33258	MCON_2981
hypothetical protein		9.32631	MCON_2075
hypothetical protein		9.30693	MCON_1909
cell division protein FtsZ	ftsZ-2	9.24422	MCON_1557
tetrahydromethanopterin S-methyltransferase			
subunit G	mtrG	9.23775	MCON_1069
hypothetical protein		9.22993	MCON_1138
transcription initiation factor IIB	tfb	9.20833	MCON_1693
tetrahydromethanopterin S-methyltransferase			
subunit C	mtrC	9.19699	MCON_1073
Cna B domain-containing protein		9.18708	MCON_1032
chaperone protein DnaJ	dnaJ	9.17531	MCON_1035
cell surface glycoprotein		9.17528	MCON_0282
hypothetical protein		9.16772	MCON_0388
transposase, IS605 OrfB family		9.15187	MCON_2314
transposase, IS605 OrfB family		9.13802	MCON_2719
tetrahydromethanopterin S-methyltransferase			
subunit A	mtrA	9.12761	MCON_1071
hypothetical protein		9.11094	MCON_1694
CO dehydrogenase/acetyl-CoA synthase subunit			
delta	cdhD	9.10337	MCON_1326
hypothetical protein		9.09782	MCON_1135
transposase, IS200 family		9.07595	MCON_2446
V-type ATP synthase subunit A	atpA	9.06526	MCON_2516
hypothetical protein		9.03872	MCON_2704
hypothetical protein		9.03395	MCON_1004
hypothetical protein		9.03044	MCON_3260
hypothetical protein		9.0215	MCON_1113
hypothetical protein		8.98435	MCON_0151
V-type ATP synthase subunit B	atpB	8.9557	MCON_2515
tetrahydromethanopterin S-methyltransferase			
subunit B	mtrB	8.95323	MCON_1072
S-layer-related duplication domain-containing protein		8.94779	MCON_2247
V-type ATP synthase subunit I	atpl	8.94037	MCON_2521
UDP-glucose 6-dehydrogenase	tuaD	8.93821	MCON_1830
hypothetical protein		8.93257	MCON_2982
hypothetical protein		8.92717	MCON_0755
AAA family ATPase		8.92249	MCON_0256
F420H2 dehydrogenase subunit M	fpoM	8.90229	MCON_3069

CBS domain-containing protein		8.90214	MCON_2020
50S ribosomal protein L12	rplL	8.89824	MCON_2912
hypothetical protein		8.8815	MCON_2795
translation elongation factor EF-1 subunit alpha	tuf	8.88008	MCON_1649
V-type ATP synthase subunit C	atpC	8.87043	MCON_2518
F420H2 dehydrogenase subunit N	fpoN	8.85881	MCON_3070
hypothetical protein		8.85567	MCON_0167
prefoldin subunit alpha	pfdA	8.83429	MCON_2619
tetrahydromethanopterin S-methyltransferase			
subunit D	mtrD	8.83113	MCON_1074
manganese-dependent inorganic pyrophosphatase	ppaC	8.82804	MCON_1906
hypothetical protein		8.82075	MCON_2969
carboxymuconolactone decarboxylase family protein		8.7742	MCON_2932
hypothetical protein		8.76621	MCON_1087
50S ribosomal protein L24	rplX	8.76311	MCON_2916
50S ribosomal protein L22	rplV	8.75746	MCON_2698
fructose bisphosphate aldolase		8.75159	MCON_3232
hypothetical protein		8.74544	MCON_1134
ATP-dependent protease	lonB	8.73251	MCON_2892
hypothetical protein		8.70957	MCON_2504
hypothetical protein		8.70934	MCON_3194
V-type ATP synthase subunit D	atpD	8.7056	MCON_2514
30S ribosomal protein S3Ae	rpsC	8.70249	MCON_3471
hypothetical protein		8.69715	MCON_1958
hypothetical protein		8.67913	MCON_2976
fasciclin domain-containing protein		8.66063	MCON_0119
protein translation initiation factor SUI1-like protein		8.6577	MCON_1729
Cna protein B-type domain-containing protein		8.64968	MCON_1562
AAA family ATPase		8.6476	MCON_0829
50S ribosomal protein L44e	rpl44e	8.62821	MCON_1621
hypothetical protein		8.62373	MCON_1475
DNA-directed RNA polymerase subunit F	rpoF	8.5905	MCON_2752
CoB-CoM heterodisulfide reductase iron-sulfur			
subunit D	hdrD	8.58629	MCON_3442
anthranilate synthase component I	trpE	8.58171	MCON_1299
hypothetical protein		8.57959	MCON_1720
DNA repair and recombination protein RadA	radA	8.57163	MCON_2843
hypothetical protein		8.5702	MCON_3346
hypothetical protein		8.56809	MCON_3357
transposase, OrfB family		8.53903	MCON_1128
adenylate kinase		8.5247	MCON_1964
nucleotide binding domain-containing protein		8.5182	MCON_1327
glycerol-1-phosphate dehydrogenase	egsA	8.5092	MCON_1056
DNA-directed RNA polymerase subunit P	rpoP	8.50396	MCON_3156
hypothetical protein		8.49614	MCON_1966
hypothetical protein		8.4945	MCON_0289

hypothetical protein		8.49215	MCON_2707
5,10-methylenetetrahydromethanopterin reductase	mer	8.47367	MCON_2394
hypothetical protein		8.46856	MCON_1137
hypothetical protein		8.45115	MCON_2115
transposase, OrfB family		8.44891	MCON_0498
CBS domain-containing protein		8.44758	MCON_2017
HtpX protease	htpX2	8.44531	MCON_2615
cold shock DNA binding domain-containing protein		8.44297	MCON_1700
Fibrillarin-like rRNA/tRNA 2'-O-methyltransferase	flpA	8.43364	MCON_1606
signal recognition particle-docking protein FtsY	ftsY	8.41733	MCON_2618
50S ribosomal protein L18e	rplR	8.4115	MCON_2567
hypothetical protein		8.38101	MCON_0573
heat shock protein Hsp20		8.36239	MCON_1959
aspartate kinase, monofunctional class		8.35633	MCON_1651
heat shock protein Hsp20		8.34088	MCON_1191
preprotein translocase subunit SecY	secY	8.34087	MCON_2680
tetrahydromethanopterin S-methyltransferase subunit F	mtrF	8.32916	MCON_1070
Aquaporin	aqpM	8.32602	MCON_3193
F420H2 dehydrogenase subunit D	fpoD	8.32483	MCON_3062
V-type ATP synthase subunit F	atpF	8.32341	MCON_2517
anaerobic ribonucleoside-triphosphate reductase	nrdD	8.32116	MCON_2095
glutamine amidotransferase subunit	pdxT	8.31549	MCON_2350
hypothetical protein		8.31521	MCON_0195
hypothetical protein		8.30399	MCON_1430
ABC transporter ATP-binding protein		8.29759	MCON_0196
hypothetical protein		8.27468	MCON_1340
proteasome-activating nucleotidase	panA	8.25141	MCON_0587
integral membrane protein		8.24617	MCON_2679
2-isopropylmalate synthase 1	leuA	8.23333	MCON_2596
phosphate regulatory protein-like protein		8.22228	MCON_1042
universal stress protein		8.21835	MCON_1433
membrane protein		8.21615	MCON_2318
thermosome subunit delta	thsD	8.20326	MCON_1442
F420H2 dehydrogenase subunit A	fpoA	8.20277	MCON_3060
lipoprotein		8.19595	MCON_3162
AsnC family transcriptional regulator		8.18883	MCON_1549
F420H2 dehydrogenase subunit L	fpoL	8.18218	MCON_3068
chaperone protein DnaK	dnaK	8.18104	MCON_1037
30S ribosomal protein S11	rpsK	8.15454	MCON_0639
F420H2 dehydrogenase subunit B	fpoB	8.15255	MCON_3061
phage shock protein A		8.14641	MCON_0304
hypothetical protein		8.14476	MCON_0581
hypothetical protein		8.12541	MCON_0137
30S ribosomal protein S19	rpsS	8.12251	MCON_2699

lipoprotein			8.10696	MCON_1553
F420H2 dehydrogenase subunit H	fpoH		8.10145	MCON_3063
hypothetical protein			8.09779	MCON_2080
pyridoxamine 5'-phosphate oxidase-related, FMN-binding protein			8.09659	MCON_0501
30S ribosomal protein S2	rpsB		8.08795	MCON_2561
hypothetical protein			8.08162	MCON_2908
hypothetical protein			8.0724	MCON_3324
50S ribosomal protein L4/L1 family	rplD		8.07099	MCON_2702
hypothetical protein			8.06838	MCON_2004
phosphoribosylaminoimidazolecarboxamide formyltransferase/IMP cyclohydrolase	purH		8.06762	MCON_1368
hypothetical protein			8.06583	MCON_0579
50S ribosomal protein L1P	rplA		8.06034	MCON_2914
response regulator receiver protein			8.05823	MCON_1876
hypothetical protein			8.05681	MCON_3195
hypothetical protein			8.05266	MCON_0543
50S ribosomal protein L23	rplW		8.04105	MCON_2701
hypothetical protein			8.03722	MCON_1089
CoB--CoM heterodisulfide reductase subunit E	hdrE		8.03285	MCON_3441
pyridoxine biosynthesis protein			8.02981	MCON_2351
30S ribosomal protein S15P/S13e	rpsO		8.02614	MCON_2092
CBS domain-containing membrane protein			8.01821	MCON_2016
hypothetical protein			8.00626	MCON_1550
50S ribosomal protein L21e	rplU		8.0038	MCON_2751
translation initiation factor 2 subunit alpha	eif2a		7.98648	MCON_1619
hypothetical protein			7.98313	MCON_1171
hypothetical protein			7.98313	MCON_3417
lipoprotein			7.95567	MCON_2105
30S ribosomal protein S7	rpsG		7.95493	MCON_1282
pyruvate oxidoreductase subunit beta	porB		7.95419	MCON_1470
hypothetical protein			7.95142	MCON_1245
50S ribosomal protein L2P	rplB		7.95126	MCON_2700
proteasome-activating nucleotidase	panB		7.94983	MCON_0155
hypothetical protein			7.94878	MCON_3347
ATPase			7.9417	MCON_2305
hypothetical protein			7.94036	MCON_1667
large conductance mechanosensitive channel protein	mscL		7.93286	MCON_0531
hypothetical protein			7.93039	MCON_1644
phosphoesterase, RecJ domain-containing protein			7.9276	MCON_0432
hypothetical protein			7.92655	MCON_0584
hypothetical protein			7.92614	MCON_3181
hypothetical protein			7.92424	MCON_1575
hypothetical protein			7.92424	MCON_1917
protein synthesis factor, GTP-binding protein			7.91544	MCON_3188

30S ribosomal protein S19e	rpsS	7.91496	MCON_2625
hypothetical protein		7.90554	MCON_1476
hypothetical protein		7.90162	MCON_0197
hypothetical protein		7.89824	MCON_1173
50S ribosomal protein L10	rplJ	7.89339	MCON_2913
hypothetical protein		7.89287	MCON_3315
hypothetical protein		7.89066	MCON_1168
hypothetical protein		7.8884	MCON_2911
50S ribosomal protein L3	rplC	7.88329	MCON_2703
30S ribosomal protein S10	rpsJ	7.88159	MCON_1648
exosome complex exonuclease 2		7.86235	MCON_3154
LSM domain-containing protein		7.86125	MCON_1204
hypothetical protein		7.85571	MCON_2753
hypothetical protein		7.85538	MCON_1710
multi-sensor hybrid histidine kinase		7.84996	MCON_1408
30S ribosomal protein S3P	rpsC	7.84996	MCON_2697
methylthioribose-1-phosphate isomerase	mtnA	7.84384	MCON_3474
50S ribosomal protein L11	rplK	7.84017	MCON_2915
thermosome subunit gamma	thsC	7.83456	MCON_1698
hypothetical protein		7.83113	MCON_0737
DNA-binding protein		7.83113	MCON_2624
chorismate synthase	aroC	7.80843	MCON_1507
thymidylate synthase, methanogen type	thyA	7.7955	MCON_1637
single-stranded DNA-binding replication protein A	rpa	7.7931	MCON_1551
hypothetical protein		7.78559	MCON_1263
acetyl-CoA carboxylase	accC	7.78492	MCON_1490
hypothetical protein		7.78068	MCON_2667
CopG family transcriptional regulator		7.77341	MCON_1605
hypothetical protein		7.76812	MCON_0440
hypothetical protein		7.76577	MCON_2899
DNA-directed RNA polymerase subunit B'	rpoB1	7.75518	MCON_1276
phosphoribosylformylglycinamide synthase II	purL	7.74845	MCON_0209
hypothetical protein		7.73945	MCON_3439
hypothetical protein		7.73159	MCON_0136
F420H2 dehydrogenase subunit K	fpoK	7.72751	MCON_3067
hypothetical protein		7.72512	MCON_1911
hypothetical protein		7.7201	MCON_1260
hypothetical protein		7.69683	MCON_1080
GMP synthase subunit B	guaB	7.68949	MCON_0459
50S ribosomal protein L7Ae	rpl7ae	7.68736	MCON_1706
NADP oxidoreductase coenzyme F420-dependent		7.68365	MCON_0253
hypothetical protein		7.6717	MCON_3157
translation elongation factor aEF-2	fusA	7.66858	MCON_1650
tryptophan synthase subunit beta	trpB	7.66851	MCON_1801
TPR repeat-containing protein		7.66694	MCON_0165
CBS domain-containing protein		7.65766	MCON_2018

radical SAM domain-containing protein		7.65763	MCON_0910
glutamate-1-semialdehyde-2,1-aminomutase	hemL	7.65524	MCON_0899
hypothetical protein		7.65259	MCON_3298
DNA-directed RNA polymerase subunit A'	rpoA1	7.6388	MCON_1277
methyltetrahydromethanopterin S-methyltransferase subunit H		7.63759	MCON_2873
small GTP-binding protein		7.63558	MCON_3350
hypothetical protein		7.63444	MCON_0879
hypothetical protein		7.63138	MCON_2224
hypothetical protein		7.63057	MCON_2005
30S ribosomal protein S27	rps27e	7.62864	MCON_1620
ABC transporter ATP-binding protein	sufC	7.62736	MCON_1768
cobyricic Acid a,c-diamide synthase	cobB2	7.62167	MCON_2971
hypothetical protein		7.61872	MCON_0653
DNA-directed RNA polymerase subunit D	rpoD	7.61417	MCON_0640
radical SAM domain-containing protein		7.61246	MCON_2084
hypothetical protein		7.60126	MCON_1610
fructose bisphosphate aldolase		7.59793	MCON_3321
SufBD domain-containing protein		7.59153	MCON_1767
hypothetical protein		7.59012	MCON_1708
thermosome subunit alpha	thsA	7.58266	MCON_0154
peptidyl-prolyl cis-trans isomerase	ppiB	7.58245	MCON_1256
hypothetical protein		7.57818	MCON_1568
universal stress protein		7.57413	MCON_2630
hydroxymethylglutaryl-CoA synthase		7.55637	MCON_1081
putative L-aspartate dehydrogenase		7.55633	MCON_1163
phenylacetate-coenzyme A ligase	paaK	7.55544	MCON_0819
DNA-directed RNA polymerase subunit B'	rpoB2	7.54881	MCON_1275
putative methanogenesis marker protein 15		7.53888	MCON_0397
hypothetical protein		7.53522	MCON_0723
hypothetical protein		7.53374	MCON_3187
Anthranilate synthase component II	trpGD	7.51662	MCON_1300
exosome complex exonuclease 1		7.51015	MCON_3153
phosphoglycerate dehydrogenase	serA	7.50874	MCON_3371
RNA-metabolising metallo-beta-lactamase		7.50124	MCON_2855
50S ribosomal protein L15	rplO	7.4977	MCON_2681
hypothetical protein		7.49519	MCON_3095
hypothetical protein		7.49128	MCON_0386
hypothetical protein		7.48717	MCON_1656
ribosomal LX protein	rplX	7.47834	MCON_2620
glutamyl-tRNA(Gln) amidotransferase subunit E	gatE	7.47665	MCON_1517
hypothetical protein		7.46856	MCON_1161
4Fe-4S ferredoxin, iron-sulfur binding domain-containing protein		7.46003	MCON_3064
hypothetical protein		7.45285	MCON_1955
O-sialoglycoprotein endopeptidase	gcp	7.44799	MCON_1871

hypothetical protein		7.44726	MCON_1238
phosphoribosylformylglycinamide synthase I (R)-citramalate synthase	purQ	7.43614	MCON_0208
LSM domain-containing protein	cimA	7.43603	MCON_2483
hypothetical protein		7.43564	MCON_1727
hypothetical protein		7.42816	MCON_2560
hypothetical protein		7.4247	MCON_0932
hypothetical protein		7.42304	MCON_0541
hypothetical protein		7.4222	MCON_2960
rubredoxin		7.42202	MCON_2660
phosphoenolpyruvate synthase	ppsA	7.42093	MCON_2883
glycerophosphoryl diester phosphodiesterase	glpQ	7.41977	MCON_0572
30S ribosomal protein S28e	rps28e	7.41835	MCON_1705
hypothetical protein		7.41739	MCON_0569
50S ribosomal protein L18	rplE	7.4142	MCON_2684
hypothetical protein		7.41384	MCON_2009
LemA family protein		7.41066	MCON_2007
50S ribosomal protein L29	rpmC	7.4089	MCON_2696
hypothetical protein		7.40857	MCON_1870
transposase, IS605 OrfB family		7.39777	MCON_3330
hypothetical protein		7.39658	MCON_0917
phosphoesterase, RecJ domain-containing protein		7.38931	MCON_2091
phosphate binding protein		7.38605	MCON_2324
hypothetical protein		7.38569	MCON_1421
polypropenyl synthetase		7.37439	MCON_2794
cytidylate kinase		7.37238	MCON_2678
iron sulfur flavoprotein	isfC	7.37115	MCON_2102
hypothetical protein		7.36427	MCON_2890
F420H2 dehydrogenase subunit	fpoO	7.36352	MCON_2389
metal dependent phosphohydrolase		7.36249	MCON_0809
50S ribosomal protein L31e	rpl31e	7.35539	MCON_2622
hypothetical protein		7.35408	MCON_1558
3-isopropylmalate dehydratase large subunit 1	leuC1	7.34986	MCON_0444
AAA ATPase family protein		7.34858	MCON_0904
pyridoxal-phosphate dependent TrpB-like enzyme		7.34805	MCON_2511
signal sequence recognition 54 kDa protein	srp54	7.34613	MCON_1716
hypothetical protein		7.34482	MCON_3275
hypothetical protein		7.34182	MCON_1711
transposase, IS605 OrfB family		7.34074	MCON_0113
hypothetical protein		7.33636	MCON_0305
phosphate transport system regulatory protein			
PhoU	phoU	7.33596	MCON_1041
methylentetrahydromethanopterin cyclohydrolase	mch	7.3357	MCON_1290
hypothetical protein		7.33023	MCON_0808
hypothetical protein		7.32982	MCON_1888
amino acid-binding ACT domain-containing protein		7.3291	MCON_0800
N-(5'phosphoribosyl)anthranilate isomerase	trpF	7.31848	MCON_1298

hypothetical protein		7.31806	MCON_1754
hypothetical protein	rpoN	7.31434	MCON_2564
pyruvate carboxylase subunit B	pycB	7.31063	MCON_2653
hypothetical protein		7.31058	MCON_2623
hypothetical protein		7.30863	MCON_0496
putative methanogenesis marker protein 3		7.30461	MCON_0394
3-isopropylmalate dehydratase large subunit 2	leuC2	7.3021	MCON_1320
pyruvate oxidoreductase subunit alpha	porA	7.30193	MCON_1469
hypothetical protein		7.29902	MCON_0749
hypothetical protein		7.29724	MCON_0096
50S ribosomal protein L16	rplP	7.29563	MCON_0922
hypothetical protein		7.29426	MCON_0805
lipoprotein		7.28527	MCON_2979
3-isopropylmalate dehydrogenase	leuB	7.28413	MCON_1272
hypothetical protein		7.283	MCON_0251
hypothetical protein		7.2829	MCON_2838
hypothetical protein		7.28179	MCON_1965
phosphate ABC transporter ATP-binding protein	pstB	7.26916	MCON_1040
AAA family ATPase		7.26751	MCON_1252
30S ribosomal protein S13p/S18e	rpsM	7.26193	MCON_0637
putative methanogenesis marker protein 6		7.25658	MCON_0395
putative methanogenesis marker protein 5		7.25601	MCON_0396
orc1/cdc6 family replication initiation protein		7.25319	MCON_1672
hypothetical protein		7.24617	MCON_1524
hypothetical protein		7.23706	MCON_1411
hypothetical protein		7.23706	MCON_3532
hypothetical protein		7.22968	MCON_2736
bifunctional enzyme fae/hps		7.22783	MCON_1383
2'-5' RNA ligase		7.22219	MCON_1150
50S ribosomal protein L24e	rpl24e	7.22063	MCON_1704
hypothetical protein		7.21851	MCON_0207
hypothetical protein		7.21399	MCON_2649
NifU-like domain-containing protein		7.20769	MCON_1726
hypothetical protein		7.20679	MCON_1018
histone deacetylase family protein		7.20435	MCON_1662
tryptophan synthase subunit alpha	trpA	7.2009	MCON_1800
hypothetical protein		7.19977	MCON_1521
hypothetical protein		7.19509	MCON_3349
lipoprotein		7.1937	MCON_1563
Sua5/YciO/YrdC/YwIC family protein		7.1923	MCON_0585
AsnC family transcriptional regulator		7.19102	MCON_0771
tungsten formylmethanofuran dehydrogenase subunit G	fwdG	7.18883	MCON_1732
hypothetical protein		7.18604	MCON_3454
hypothetical protein		7.18544	MCON_0722
3-isopropylmalate dehydratase small subunit 2	leuD2	7.18362	MCON_1271

TPR-repeat-containing protein		7.17799	MCON_1479
TPR-repeat-containing protein		7.17543	MCON_2617
hypothetical protein		7.17422	MCON_1167
50S ribosomal proteinL15	rplJ	7.17061	MCON_3146
50S ribosomal protein L32	rpmF	7.16302	MCON_2686
ABC transporter ATP-binding protein		7.15781	MCON_2074
putative methanogenesis marker protein 12		7.15306	MCON_1063
50S ribosomal protein L37a	rpmK	7.15101	MCON_3155
oligosaccharyl transferase STT3 subunit		7.14872	MCON_1444
hypothetical protein		7.14663	MCON_0450
tungsten formylmethanofuran dehydrogenase subunit D	fwdD	7.14183	MCON_1734
translation initiation factor 2 subunit beta (eIF-2-beta) (aIF2-beta)	eif2b	7.13925	MCON_0921
50S ribosomal protein L30P	rpmD	7.13779	MCON_2682
extracellular protein		7.13615	MCON_3355
hypothetical protein		7.13398	MCON_2882
tungsten formylmethanofuran dehydrogenase subunit B	fwdB	7.1336	MCON_1733
hypothetical protein		7.13221	MCON_1318
phosphoribosylformylglycinamide cyclo-ligase	purM	7.12851	MCON_1652
exosome complex RNA-binding protein RRP4		7.12418	MCON_3152
hypothetical protein		7.11675	MCON_1638
tetrahydromethanopterin S-methyltransferase subunit A		7.11492	MCON_2872
Fe-S cluster domain-containing protein		7.1131	MCON_0198
hypothetical protein		7.11152	MCON_0164
triose-phosphate isomerase	tpiA	7.10996	MCON_3293
PBS lyase HEAT-like repeat-containing protein		7.10935	MCON_1347
FAD-dependent pyridine nucleotide-disulfide oxidoreductase		7.10499	MCON_0536
thermosome subunit beta	thsB	7.09621	MCON_1039
FAD-dependent pyridine nucleotide-disulfide oxidoreductase		7.0919	MCON_1495
phosphoribulokinase/uridine kinase family protein	prk	7.08622	MCON_1902
hypothetical protein		7.0857	MCON_1571
ATPase		7.0851	MCON_1097
30S ribosomal protein S5	rpsE	7.08488	MCON_2683
lipoprotein		7.08294	MCON_2848
histone deacetylase family protein		7.07431	MCON_1162
DNA polymerase sliding clamp	pcnA	7.06442	MCON_1510
thiamine biosynthesis protein ThiC	thiC	7.05639	MCON_1611
DNA gyrase subunit B	gyrB	7.05581	MCON_1102
polymorphic outer membrane protein		7.055	MCON_2149
threonine synthase	thrC	7.05444	MCON_0169
amidophosphoribosyltransferase	purF	7.05264	MCON_1206
hypothetical protein		7.05115	MCON_0844
precorrin-4 C11-methyltransferase	cobM	7.05091	MCON_1683
hypothetical protein		7.04888	MCON_3428

DNA topoisomerase I	topA	7.04679	MCON_0764
hypothetical protein		7.04609	MCON_3353
cell surface protein		7.04386	MCON_3189
AAA family ATPase		7.04155	MCON_2891
hypothetical protein		7.04049	MCON_2348
AP endonuclease		7.03671	MCON_3133
hypothetical protein		7.02985	MCON_1348
phosphoglycerate kinase	pgk	7.02916	MCON_2355
50S ribosomal protein L37e	rpl37e	7.02799	MCON_1205
ferredoxin		7.02799	MCON_3295
hypothetical protein		7.0262	MCON_0882
class V aminotransferase		7.02545	MCON_2759
hypothetical protein		7.02377	MCON_0881
hypothetical protein		7.02061	MCON_2370
hypothetical protein		7.01989	MCON_0849
hypothetical protein		7.01722	MCON_0807
thioredoxin	trxA	7.01668	MCON_0287
proteasome subunit beta	psmB	7.01211	MCON_2856
hypothetical protein		7.00371	MCON_0291
hypothetical protein		6.99868	MCON_0699
hypothetical protein		6.99681	MCON_1762
hypothetical protein		6.9907	MCON_2571
hypothetical protein		6.9861	MCON_0104
CBS domain pair protein		6.98535	MCON_2019
Ku protein		6.98516	MCON_3252
methyl coenzyme M reductase system, component A2	atwA	6.97989	MCON_0393
hypothetical protein		6.97788	MCON_3184
methylated-DNA--protein-cysteine methyltransferase		6.97552	MCON_1043
radical SAM domain-containing protein		6.9754	MCON_3351
lipoprotein		6.97436	MCON_1713
hypothetical protein		6.96606	MCON_3207
aliphatic sulfonate ABC transporter substrate-binding protein		6.96294	MCON_2822
lipoprotein		6.95285	MCON_1440
ATPase		6.95112	MCON_0094
type-2 seryl-tRNA synthetase	serS	6.94992	MCON_2089
acetolactate synthase, large subunit	ilvB	6.94808	MCON_0410
hypothetical protein		6.94442	MCON_1085
translation initiation factor eIF-2	infB	6.94384	MCON_1702
HAD-superfamily hydrolase		6.93772	MCON_2743
putative methanogenesis marker protein 17		6.93552	MCON_0398
ribonuclease P protein component 1	rnpA	6.93524	MCON_2695
hypothetical protein		6.93438	MCON_1393
hypothetical protein		6.9312	MCON_0111
translation initiation factor eIF-6	eif6	6.92748	MCON_2621
periplasmic binding protein		6.92717	MCON_2202

ornithine carbamoyltransferase	argF	6.92424	MCON_1735
glycosyl transferase, group 1 family protein		6.92238	MCON_1483
radical SAM domain-containing protein		6.9214	MCON_2793
anthranilate phosphoribosyltransferase	trpD	6.92107	MCON_1297
TPR-repeat-containing protein		6.91778	MCON_1336
RDD domain-containing protein		6.91525	MCON_1481
radical SAM domain-containing protein		6.91412	MCON_1341
hydantoinase/oxoprolinase		6.91388	MCON_1663
Cytidyltransferase		6.91256	MCON_1494
S-adenosylmethionine synthetase	mat	6.91238	MCON_2824
hypothetical protein		6.91023	MCON_1036
PIN domain-containing protein		6.90687	MCON_1569
mevalonate kinase	mvk	6.90483	MCON_2559
pyridoxamine 5'-phosphate oxidase family protein		6.90328	MCON_1489
glutamyl-tRNA(Gln) amidotransferase subunit D	gatD	6.90141	MCON_0923
formylmethanofuran dehydrogenase subunit A	fmdA	6.89361	MCON_0241
hypothetical protein		6.89338	MCON_1622
hypothetical protein		6.89253	MCON_1027
arginine decarboxylase	speA	6.89241	MCON_3166
hypothetical protein		6.8915	MCON_0883
30S ribosomal protein S9	rpsL	6.89132	MCON_2565
histidine-containing phosphotransfer protein		6.88684	MCON_2451
hypothetical protein		6.88612	MCON_0586
dihydropteroate synthase-like protein		6.88572	MCON_1709
hypothetical protein		6.87918	MCON_1603
hypothetical protein		6.8756	MCON_2921
glutaredoxin-like protein		6.87113	MCON_1512
aspartate-semialdehyde dehydrogenase	asd	6.8685	MCON_1211
IMP cyclohydrolase	purO	6.86836	MCON_1471
hypothetical protein		6.86658	MCON_1728
amino acid-binding ACT domain-containing protein		6.86067	MCON_0820
hypothetical protein		6.86051	MCON_0288
adenylosuccinate synthetase	purA	6.86018	MCON_0554
hypothetical protein		6.85914	MCON_1580
hypothetical protein		6.85914	MCON_1901
KaiC protein		6.85771	MCON_1487
hypothetical protein		6.85695	MCON_1810
hypothetical protein		6.85385	MCON_1633
phenylacetic acid degradation protein PaaD		6.85385	MCON_2773
nucleoside 2-deoxyribosyltransferase		6.85076	MCON_1951
formylmethanofuran dehydrogenase subunit B	fmdB	6.84972	MCON_0238
4Fe-4S ferredoxin, iron-sulfur binding domain-containing protein		6.84965	MCON_1339
(R)-citramalate synthase	cimA	6.84407	MCON_0409
CAAX amino terminal protease family protein		6.84297	MCON_0893
replication factor C small subunit	rfcS	6.84295	MCON_1409

30S ribosomal protein S23 (S12)	rpsL	6.84118	MCON_1281
hypothetical protein		6.84053	MCON_0578
rRNA pseudouridine synthase		6.83889	MCON_2676
ribose-phosphate pyrophosphokinase		6.83789	MCON_1616
DegT/DnrJ/EryC1/StrS aminotransferase		6.83505	MCON_2573
hypothetical protein		6.83113	MCON_2635
glutamate synthase	gltA	6.8291	MCON_2737
hypothetical protein		6.82871	MCON_1869
RelE/StbE family addiction module toxin		6.82606	MCON_1189
alanyl-tRNA synthetase	alaS	6.82371	MCON_2033
chromosome segregation protein SMC	smc	6.81794	MCON_2442
hypothetical protein		6.81321	MCON_2371
extracellular nuclease		6.81294	MCON_2894
hypothetical protein		6.80674	MCON_1076
erythromycin esterase family protein		6.80536	MCON_2338
putative methanogenesis marker protein 11		6.80525	MCON_3169
phosphate binding protein	pstS	6.80523	MCON_0539
50S ribosomal protein L13	rplM	6.80338	MCON_2566
DNA polymerase LigD	ligD	6.79413	MCON_3253
hypothetical protein		6.77866	MCON_0669
oxidoreductase domain-containing protein		6.77454	MCON_2574
GXGXG motif protein		6.77331	MCON_1166
hypothetical protein		6.77265	MCON_2942
putative peroxiredoxin		6.77149	MCON_1760
peptidase M50		6.76973	MCON_0290
alpha-NAC-like protein		6.76733	MCON_0576
hypothetical protein		6.76357	MCON_2423
tRNA-splicing endonuclease	endA	6.76238	MCON_2907
cell division control protein 6	cdc6	6.76152	MCON_1518
hypothetical protein		6.76074	MCON_2424
beta-lactamase domain-containing protein		6.75713	MCON_0035
ribosomal RNA large subunit methyltransferase J	rrmJ	6.75624	MCON_0728
hypothetical protein		6.75603	MCON_1289
ABC transporter ATP-binding protein		6.75503	MCON_1054
hypothetical protein		6.75181	MCON_2785
hypothetical protein		6.75084	MCON_1725
carbon-monoxide dehydrogenase, catalytic subunit	cooS	6.74853	MCON_2865
CoA-binding domain-containing protein		6.74401	MCON_1712
prolyl-tRNA synthetase	proS	6.74169	MCON_2101
oligosaccharyl transferase STT3 subunit		6.74106	MCON_1133
translation initiation factor eIF-1A	eif1a	6.7352	MCON_0293
dihydronicotinate reductase	dapB	6.72844	MCON_0803
hypothetical protein		6.72054	MCON_2450
radical SAM domain-containing protein		6.71862	MCON_0758
cellulase		6.71565	MCON_2641

50S ribosomal protein L5	rplE	6.71565	MCON_2690
hypothetical protein		6.71011	MCON_2030
hypothetical protein		6.70325	MCON_2454
response regulator domain with PAS sensor		6.69868	MCON_1506
O-phosphoseryl-tRNA(Cys) synthetase	sepS	6.69702	MCON_3135
aminotransferase		6.69482	MCON_0772
peptidyl-prolyl cis-trans isomerase	ppiA	6.69418	MCON_1255
haloacid dehalogenase domain-containing protein hydrolase		6.69095	MCON_1643
hypothetical protein		6.68253	MCON_1392
hypothetical protein		6.68167	MCON_1781
DNA mismatch repair protein MutS	mutS	6.67754	MCON_1572
hypothetical protein		6.67631	MCON_1210
cytidine deaminase		6.66868	MCON_3443
HTH-type transcriptional regulatory protein		6.66353	MCON_1903
hypothetical protein		6.65893	MCON_3313
DNA gyrase subunit A	gyrA	6.65849	MCON_1103
thymidylate kinase	tmk	6.6578	MCON_1907
hypothetical protein		6.65703	MCON_2854
hypothetical protein		6.65404	MCON_1342
hypothetical protein		6.65142	MCON_1083
hypothetical protein		6.65079	MCON_3147
hypothetical protein		6.64849	MCON_1390
nodulation protein NfeD		6.64301	MCON_3180
universal stress protein		6.6413	MCON_0171
hypothetical protein		6.64044	MCON_0930
hypothetical protein		6.63951	MCON_0855
sulfite reductase, assimilatory-type		6.63473	MCON_1172
replication factor C large subunit	rfcL	6.63398	MCON_1488
iron-sulfur cluster-binding protein		6.63129	MCON_2949
glycyl-tRNA synthetase	glyS	6.63115	MCON_1962
DNA primase, large subunit	priL	6.62921	MCON_1508
phosphoribosylamine--glycine ligase	purD	6.62747	MCON_1872
hypothetical protein		6.62677	MCON_1584
hypothetical protein		6.62293	MCON_1268
30S ribosomal protein S4	rpsD	6.62033	MCON_0638
methionyl-tRNA synthetase	metG	6.61853	MCON_2840
dihydroxy-acid dehydratase	ilvD	6.61337	MCON_1149
hypothetical protein		6.60686	MCON_1618
oxidoreductase FAD/NAD		6.60676	MCON_3306
flavodoxin domain-containing protein		6.60542	MCON_1322
hypothetical protein		6.60462	MCON_0878
DNA-directed RNA polymerase	rpoE	6.60462	MCON_3186
UbiD family decarboxylase		6.60338	MCON_1237
radical SAM domain-containing protein		6.60175	MCON_1212
peroxiredoxin		6.6015	MCON_2613
hypothetical protein		6.59506	MCON_0547

CTP synthase	pyrG	6.59216	MCON_1542
hypothetical protein		6.58905	MCON_2895
helix-turn-helix DNA binding protein		6.58869	MCON_1504
hypothetical protein		6.58767	MCON_1157
CoB-CoM heterodisulfide reductase subunit C	hdrC	6.58592	MCON_3282
hypothetical protein		6.58497	MCON_2103
hypothetical protein		6.5832	MCON_1358
HesB/YadR/YfhF family protein		6.58135	MCON_3422
lipoprotein		6.57874	MCON_2943
NADH dehydrogenase/NAD(P)H nitroreductase		6.57824	MCON_0392
Papain family cysteine protease		6.57706	MCON_1719
30S ribosomal protein S14p/S29e	rpsN	6.57374	MCON_2689
glycosyl transferase, group 1 family protein		6.57363	MCON_1485
hypothetical protein		6.56941	MCON_1337
transmembrane protein		6.56809	MCON_1701
flavoredoxin	flr	6.56657	MCON_0391
iron-sulfur flavoprotein	isfD	6.56499	MCON_2601
hypothetical protein		6.56041	MCON_2750
valyl-tRNA synthetase	vals	6.56035	MCON_1158
protein export membrane protein		6.55838	MCON_0428
putative methanogenesis marker protein 9		6.55743	MCON_0072
hydroxymethylglutaryl-CoA reductase	mvaA	6.55716	MCON_2640
deoxyhypusine synthase	dysB	6.55623	MCON_3163
threonine dehydratase	ilvA	6.55374	MCON_0330
hypothetical protein		6.55197	MCON_2031
hypothetical protein		6.54923	MCON_0940
hypothetical protein		6.54767	MCON_1642
50S ribosomal protein L6	rplF	6.54674	MCON_2687
30S ribosomal protein S8	rpsH	6.54573	MCON_2688
ferritin	ftnA	6.53642	MCON_2661
hypothetical protein		6.53397	MCON_0850
bifunctional protein birA		6.53386	MCON_1491
peptidase families S8 and S53 protein		6.52929	MCON_0464
hypothetical protein		6.52924	MCON_2798
phenylalanyl-tRNA synthetase subunit beta	pheT	6.52921	MCON_1975
DNA-directed RNA polymerase subunit A'	rpoA2	6.52806	MCON_1278
superoxide dismutase (Mn/Fe)	sod	6.52088	MCON_2612
phosphoglucomutase/phosphomannomutase		6.52009	MCON_0725
glycosyl transferase family protein		6.51018	MCON_0894
hypothetical protein		6.5092	MCON_2254
putative methanogenesis marker protein 10		6.5049	MCON_1242
PUA domain-containing protein		6.50262	MCON_0338
NusA protein-like protein	nusA	6.50251	MCON_1280
nucleotidyl transferase		6.50235	MCON_1317
DNA-directed RNA polymerase subunit E'	rpoE2	6.50142	MCON_3185
hypothetical protein		6.49893	MCON_0433

cobalt-precorrin-3B C(17)-methyltransferase		6.49298	MCON_1681
nucleotidyl transferase		6.4924	MCON_2583
hypothetical protein		6.49146	MCON_0424
TFIIE subunit alpha	tfe	6.48584	MCON_1578
hypothetical protein		6.48571	MCON_0323
formate/nitrite family transporter		6.48521	MCON_2741
hypothetical protein		6.48386	MCON_3356
hypothetical protein		6.48367	MCON_2082
cation diffusion facilitator family transporter		6.47976	MCON_0306
archaeoflavoprotein AfpA	afpA	6.47914	MCON_1926
hypothetical protein		6.47443	MCON_1675
cation-transporting P-type ATPase		6.47323	MCON_1973
hypothetical protein		6.473	MCON_2014
ABC transporter permease		6.47283	MCON_2823
HtpX protease	htpX1	6.47276	MCON_0032
methyl-coenzyme M reductase operon protein C	mcrC	6.46667	MCON_1450
50S ribosomal protein L30e		6.46656	MCON_1279
archaeosine tRNA-ribosyltransferase		6.45302	MCON_0339
histidinol-phosphate aminotransferase	hisC	6.45207	MCON_1614
deoxyribonuclease		6.45083	MCON_2482
transcription factor TFIID	tbpB	6.45052	MCON_2012
hypothetical protein		6.44898	MCON_2034
hypothetical protein		6.44898	MCON_2220
cell surface protein		6.44789	MCON_1505
hypothetical protein		6.44646	MCON_1935
cell division protein FtsZ	ftsZ-1	6.4438	MCON_1235
DNA polymerase D, small subunit DP1	polB	6.44281	MCON_1608
hypothetical protein		6.43753	MCON_1091
hypothetical protein		6.4358	MCON_3466
hypothetical protein		6.43493	MCON_0851
NADH dehydrogenase/NAD(P)H nitroreductase		6.43461	MCON_1884
uroporphyrinogen III synthase/methyltransferase	cobA	6.43449	MCON_0901
geranylgeranyl reductase		6.43236	MCON_3296
hypothetical protein		6.42526	MCON_0898
hypothetical protein		6.4202	MCON_0920
isoleucyl-tRNA synthetase	ileS	6.41639	MCON_1410
two-component hybrid sensor and regulator		6.41272	MCON_2222
iron-sulfur flavoprotein	isfA	6.41123	MCON_1925
hypothetical protein		6.39979	MCON_2836
hypothetical protein		6.39918	MCON_0093
creatininase		6.39456	MCON_1443
hypothetical protein		6.39239	MCON_1057
hypothetical protein		6.39151	MCON_0785
PHP domain-containing protein		6.38305	MCON_0912
hypothetical protein		6.38298	MCON_2954
acylphosphatase		6.3803	MCON_2968

putative methanogenesis marker protein 2		6.37917	MCON_2262
hypothetical protein		6.37815	MCON_1486
indolepyruvate oxidoreductase subunit beta	iorB	6.37713	MCON_1111
DNA topoisomerase VI subunit B	top6b	6.3768	MCON_1548
acylphosphatase		6.37545	MCON_2328
ABC transporter ATP-binding protein		6.37525	MCON_2038
family 2 glycosyl transferase		6.3749	MCON_1349
hydroxyethylthiazole kinase	thiM	6.36624	MCON_3370
radical SAM domain-containing protein		6.35959	MCON_1968
threo-isocitrate dehydrogenase [NAD]	aksF	6.35562	MCON_1315
siroheme synthase domain-containing protein		6.35308	MCON_1503
leucyl-tRNA synthetase	leuS	6.35004	MCON_2419
hypothetical protein		6.3483	MCON_0463
hypothetical protein		6.3483	MCON_3314
translation elongation factor aEF-1 beta	ef1B	6.33928	MCON_0140
hypothetical protein		6.33668	MCON_1492
protein export membrane protein		6.33605	MCON_0427
hypothetical protein		6.32794	MCON_2937
cation transport protein		6.32502	MCON_0896
TPR-repeat-containing protein		6.32135	MCON_2484
hypothetical protein		6.32059	MCON_0215
hypothetical protein		6.32017	MCON_0141
alpha/beta fold family hydrolase		6.31963	MCON_0252
cell division protein pelota	pelA	6.31933	MCON_0767
formylmethanofuran--tetrahydromethanopterin			
formyltransferase	fhcD	6.31725	MCON_1472
hypothetical protein		6.31571	MCON_2481
acetolactate synthase, small subunit	ilvN	6.31488	MCON_0411
hypothetical protein		6.31328	MCON_1601
translation initiation factor eIF-5A	eif5A	6.31225	MCON_2776
glucose-1-phosphate thymidylyltransferase	rfbA	6.30654	MCON_2594
hypothetical protein		6.30587	MCON_1357
ABC transporter ATP-binding protein		6.30486	MCON_2841
DNA-(apurinic or apyrimidinic site) lyase		6.30275	MCON_2064
hypothetical protein		6.30231	MCON_1425
CBS domain-containing protein		6.30043	MCON_0170
ribulose bisphosphate carboxylase, large chain			
(form II)	cbbM	6.29972	MCON_3086
hypothetical protein	rpoK	6.29347	MCON_2562
hypothetical protein		6.29263	MCON_1125
hypothetical protein		6.29197	MCON_1213
hypothetical protein		6.29135	MCON_1228
rhomboid family protein		6.29125	MCON_2480
hypothetical protein		6.28799	MCON_0056
elongation factor Tu, domain 2 protein		6.2866	MCON_1292
membrane protein		6.28464	MCON_1963

hypothetical protein		6.28332	MCON_0549
hypothetical protein		6.2744	MCON_2393
PHP domain-containing protein		6.27193	MCON_0443
hypothetical protein		6.26775	MCON_0225
hypothetical protein		6.26723	MCON_3118
hypothetical protein		6.26562	MCON_0693
threonyl-tRNA synthetase	thrS	6.2646	MCON_1395
N2,N2-dimethylguanosine tRNA methyltransferase	trm1	6.26238	MCON_1370
DNA-directed RNA polymerase subunit M	rpoM	6.2601	MCON_1511
TraB family protein		6.25952	MCON_1372
hypothetical protein		6.25224	MCON_2284
AMP phosphorylase		6.24902	MCON_0583
ribonucleoside-diphosphate reductase, adenosylcobalamin-dependent		6.2483	MCON_1654
hypothetical protein		6.24617	MCON_0447
pyruvate oxidoreductase subunit delta	porD	6.24617	MCON_1468
hypothetical protein		6.24617	MCON_1579
hypothetical protein		6.24617	MCON_2111
ketoisovalerate oxidoreductase subunit	vorA	6.24017	MCON_0778
argininosuccinate lyase	argH	6.23729	MCON_1456
Enolase	eno	6.23575	MCON_0157
UbiA family prenyltransferase		6.23544	MCON_0147
PmbA/TldD family protein		6.22986	MCON_1617
cation-transporting P-type ATPase		6.22864	MCON_2626
porphobilinogen deaminase	hemC	6.22718	MCON_0900
thiolase		6.22368	MCON_1082
Preprotein translocase subunit secE	secE	6.22308	MCON_1931
toprim domain-containing protein		6.22308	MCON_3176
hypothetical protein		6.22283	MCON_2015
TPR-repeat-containing protein		6.22214	MCON_3130
kinase RIO1 family protein		6.21889	MCON_0292
hypothetical protein		6.21491	MCON_1809
flavoprotein		6.2146	MCON_3372
50S ribosomal protein L14b/L23e	rplN	6.21325	MCON_2693
glucose-6-phosphate isomerase	pgiA	6.20964	MCON_2977
hypothetical protein		6.20957	MCON_3168
hypothetical protein		6.20664	MCON_0540
hypothetical protein		6.2059	MCON_2757
hypothetical protein		6.20335	MCON_1685
ribosomal-protein-alanine acetyltransferase	rimI	6.20231	MCON_0076
signal sequence peptidase I	spi	6.20072	MCON_1607
diaminopimelate decarboxylase	lysA	6.19819	MCON_1770
peptidase S8 and S53, subtilisin		6.19735	MCON_1375
peptide chain release factor eRF/aRF subunit 1	prf1	6.19654	MCON_3131
GNAT family acetyltransferase		6.19514	MCON_3043
hypothetical protein		6.19031	MCON_2874

glutamyl-tRNA(Gln) amidotransferase subunit A	gatA	6.18702	MCON_0312
LPPG:Fo 2-phospho-L-lactate transferase	cofD	6.18687	MCON_1062
amino acid kinase		6.18151	MCON_2558
alkyl/aryl-sulfatase		6.18104	MCON_3089
putative methanogenesis marker protein 7		6.17905	MCON_0399
hypothetical protein		6.17832	MCON_0435
ketoisovalerate oxidoreductase subunit	vorB	6.17826	MCON_0779
hypothetical protein		6.17653	MCON_3048
thermophile-specific fructose-1,6-bisphosphatase		6.17461	MCON_2528
hypothetical protein		6.17438	MCON_2739
nicotinamide-nucleotide adenylyltransferase		6.17422	MCON_2395
hypothetical protein		6.1723	MCON_1731
hypothetical protein		6.17217	MCON_0460
hypothetical protein		6.17217	MCON_0865
homoserine dehydrogenase	hdh	6.16673	MCON_0799
alpha-amylase		6.16507	MCON_0285
hypothetical protein		6.16487	MCON_2662
carbamoyl-phosphate synthase, small subunit	carA	6.1621	MCON_1026
hypothetical protein		6.16128	MCON_3339
peptidase M50		6.16116	MCON_1373
Na+/solute symporter		6.15324	MCON_2311
hypothetical protein		6.15306	MCON_2881
hypothetical protein		6.14995	MCON_0871
hypothetical protein		6.14341	MCON_1434
acylphosphatase		6.14147	MCON_0884
3,4-dihydroxy-2-butanone 4-phosphate			
synthase/GTP cyclohydrolase II	ribBA	6.13842	MCON_1155
hypothetical protein		6.13598	MCON_2948
hypothetical protein		6.13466	MCON_0442
hypothetical protein		6.13427	MCON_1324
geranylgeranylglycerol phosphate synthase		6.13354	MCON_1916
hypothetical protein		6.13327	MCON_1174
hypothetical protein		6.13069	MCON_0831
cytochrome c biogenesis transmembrane protein		6.13069	MCON_3047
hydrophobe/amphiphile efflux-3 (HAE3) family efflux			
transporter		6.13007	MCON_1782
acyl-coenzyme A synthetase		6.12765	MCON_0780
adenylosuccinate lyase		6.12531	MCON_2669
hypothetical protein		6.12368	MCON_0988
hypothetical protein		6.12063	MCON_0905
AbrB family transcriptional regulator		6.11688	MCON_1646
beta-ribofuranosylaminobenzene 5'-phosphate synthase			
family		6.11653	MCON_2372
purine nucleoside phosphorylase		6.11438	MCON_3473
pyruvate flavodoxin/ferredoxin oxidoreductase domain-containing protein		6.10763	MCON_2658

uridylate kinase	pyrH	6.10481	MCON_1967
aspartyl-tRNA synthetase	aspS	6.10335	MCON_1668
KamA family protein		6.10321	MCON_3114
pentapeptide repeat-containing protein		6.10321	MCON_3413
glutamate dehydrogenase	gdhA	6.10031	MCON_3302
glucosamine-1-phosphate N-acetyltransferase	glmU	6.10009	MCON_2572
G-D-S-L family lipolytic protein		6.09882	MCON_1799
cytidyltransferase-like domain-containing protein		6.09861	MCON_1493
hypothetical protein		6.09807	MCON_1064
hypothetical protein		6.09373	MCON_1416
transposase, IS605 family protein MITE		6.09292	MCON_0593
radical SAM domain-containing protein		6.09292	MCON_0902
cobalamin (vitamin B12) biosynthesis CbiG protein	cbiG	6.09166	MCON_1682
putative methanogenesis marker protein 10		6.09025	MCON_2443
geranylgeranyl reductase		6.08774	MCON_1564
metallo-beta-lactamase domain-containing protein		6.08639	MCON_2304
hypothetical protein		6.0857	MCON_0337
hypothetical protein		6.0857	MCON_1011
beta-propeller repeat-containing protein		6.08406	MCON_1828
phosphopantothenoylcysteine			
decarboxylase/phosphopantothenate--cysteine ligase	coaBC	6.08165	MCON_3480
hypothetical protein		6.07624	MCON_2083
CDP-alcohol phosphatidyltransferase		6.07268	MCON_0773
NMD3 family protein		6.06893	MCON_3177
pentapeptide repeat-containing protein		6.06783	MCON_3412
hypothetical protein		6.06533	MCON_1660
hypothetical protein		6.06423	MCON_1908
glycogen debranching protein		6.06343	MCON_0895
cysteine desulfurase NifS	nifS	6.0631	MCON_3460
indolepyruvate ferredoxin oxidoreductase subunit alpha	iorA	6.06197	MCON_1110
putative methanogenesis marker protein 1		6.0611	MCON_2772
hypothetical protein		6.05947	MCON_0071
glutamine synthetase, type I	glnA	6.05818	MCON_1873
uroporphyrin-III C/tetrapyrrole methyltransferase		6.05656	MCON_1684
hypothetical protein		6.05463	MCON_0118
hypothetical protein		6.05402	MCON_1190
hypothetical protein		6.05352	MCON_0405
30S ribosomal protein S8	rpsH	6.05352	MCON_1887
periplasmic copper-binding protein NosD		6.05271	MCON_1377
cell surface protein		6.05244	MCON_1398
phosphatidylserine decarboxylase-like protein		6.05166	MCON_0462
hypothetical protein		6.04686	MCON_2467
hypothetical protein		6.04623	MCON_0877
radical SAM domain-containing protein		6.04547	MCON_0719

precorrin-6y C5,15-methyltransferase domain-containing protein	cbiE	6.04378	MCON_1678
serine/threonine protein kinase RIO2		6.04354	MCON_1314
hypothetical protein		6.04058	MCON_2745
DNA mismatch repair protein MutL	mutL	6.04049	MCON_1573
alpha/beta hydrolase fold protein		6.0392	MCON_0064
hypothetical protein		6.03722	MCON_2605
hypothetical protein		6.03671	MCON_0415
aminotransferase		6.03624	MCON_2418
hypothetical protein		6.03362	MCON_0864
hypothetical protein		6.03317	MCON_0237
2,3-bisphosphoglycerate-independent phosphoglycerate mutase		6.03234	MCON_1451
4Fe-4S ferredoxin, iron-sulfur binding domain-containing protein		6.03157	MCON_0012
TrmH family RNA methyltransferase		6.03157	MCON_2081
integral membrane protein		6.03115	MCON_2100
iron sulfur cluster/nucleotide binding domain-containing protein		6.03044	MCON_0697
pyruvate/ketoisovalerate oxidoreductase subunit gamma	vorC	6.02914	MCON_1467
hydrophobe/amphiphile efflux-3 (HAE3) family transporter		6.02862	MCON_1641
30S ribosomal protein S4E	rpsD	6.02786	MCON_2691
TspO/MBR family protein		6.02672	MCON_3431
hypothetical protein		6.02649	MCON_2361
radical SAM domain-containing protein		6.02526	MCON_1792
hypothetical protein		6.02087	MCON_1048
hypothetical protein		6.02045	MCON_3416
formylmethanofuran dehydrogenase subunit F	fmdF	6.01957	MCON_0242
TldD/PmbA family protein		6.01939	MCON_2893
hypothetical protein		6.01921	MCON_0039
soluble hydrogenase small subunit		6.01747	MCON_2508
GTP-binding/TGS domain-containing protein		6.01405	MCON_0542
hypothetical protein		6.0117	MCON_1913
histidinol dehydrogenase	hisD	6.00913	MCON_0797
DNA topoisomerase VI subunit A	top6a	6.00446	MCON_1547
hypothetical protein		5.99594	MCON_0876
hypothetical protein		5.99051	MCON_2816
fructose-1,6-bisphosphatase	fbp	5.98957	MCON_2525
hypothetical protein		5.98512	MCON_0148
rhodanese domain-containing protein		5.98484	MCON_1529
methyltransferase		5.98093	MCON_2777
hypothetical protein		5.97906	MCON_2784
ABC transporter permease		5.97801	MCON_0467
histone deacetylase family protein		5.97698	MCON_0582
NAD-dependent epimerase/dehydratase		5.97154	MCON_1862

hypothetical protein		5.96801	MCON_1400
serine hydroxymethyltransferase	glyA	5.96705	MCON_0223
molybdenum cofactor biosynthesis protein		5.96641	MCON_1509
hypothetical protein		5.96606	MCON_0051
hypothetical protein		5.9646	MCON_0529
CCA-adding enzyme	cca	5.96323	MCON_1151
metal ABC transporter ATP-binding protein		5.96184	MCON_2029
hypothetical protein		5.96026	MCON_0199
sulfopyruvate decarboxylase subunit alpha	comD	5.95859	MCON_2819
hypothetical protein		5.95071	MCON_3340
membrane protein		5.94725	MCON_1195
nicotinate-nucleotide diphosphorylase (carboxylating)	nadC	5.947	MCON_1164
3-isopropylmalate dehydratase small subunit 1	leuD1	5.94661	MCON_1922
hypothetical protein		5.94593	MCON_3045
hypothetical protein		5.94239	MCON_0138
acylphosphatase		5.93919	MCON_1692
methyltransferase		5.93706	MCON_0801
hypothetical protein		5.93583	MCON_0677
YcfA family protein		5.93422	MCON_1012
fructose-bisphosphate aldolase		5.93235	MCON_1478
tryptophanyl-tRNA synthetase	trpS	5.93232	MCON_2117
WD40-like beta propeller repeat-containing protein		5.93074	MCON_2352
hypothetical protein		5.92898	MCON_1439
hypothetical protein		5.92855	MCON_0535
metallo-beta-lactamase domain-containing protein		5.92675	MCON_0701
dinitrogenase iron-molybdenum cofactor biosynthesis protein		5.92424	MCON_0695
metalloenzyme domain-containing protein		5.92424	MCON_1389
hypothetical protein		5.92424	MCON_2062
hypothetical protein		5.92149	MCON_1415
ABC transporter permease		5.9205	MCON_1287
hypothetical protein		5.91722	MCON_3341
cation-transporting P-type ATPase		5.91547	MCON_3478
transposase, IS605 OrfB family		5.91508	MCON_1382
carbohydrate kinase, YjeF-like protein		5.91336	MCON_1530
ADP-specific phosphofructokinase/glucokinase	pfkC	5.913	MCON_0234
GMP synthase subunit A	guaA	5.91274	MCON_1034
50S ribosomal protein L19e	rplS	5.91012	MCON_2685
putative methanogenesis marker protein 14		5.9057	MCON_2846
phosphomethylpyrimidine kinase	thiD	5.9047	MCON_0806
FAD dependent oxidoreductase		5.90388	MCON_2380
CoB--CoM heterodisulfide reductase subunit A	hdrA	5.90276	MCON_3279
dihydroticolinate synthase	dapA	5.90183	MCON_0804
hypothetical protein		5.90103	MCON_0034
thioredoxin reductase	trxB	5.89999	MCON_1435
hypothetical protein		5.89972	MCON_3167

Trk system potassium uptake protein	trkA	5.89764	MCON_0897
major facilitator family transporter		5.89211	MCON_0708
30S ribosomal protein S17	rpsQ	5.89107	MCON_2694
hypothetical protein		5.8865	MCON_1798
orotate phosphoribosyltransferase	pyrE	5.87693	MCON_1953
acetyl-CoA hydrolase/transferase		5.87472	MCON_0112
alkylhydroperoxidase-like protein		5.87336	MCON_2235
RNA 2'-phosphotransferase, Tpt1/KptA family		5.87301	MCON_3311
hypothetical protein		5.87271	MCON_0453
hypothetical protein		5.87271	MCON_1448
metallo-beta-lactamase family protein		5.86828	MCON_0109
formate dehydrogenase subunit alpha	fdhA	5.86596	MCON_2237
DNA ligase	ligB	5.86501	MCON_1559
hypothetical protein		5.8643	MCON_2273
hypothetical protein		5.8637	MCON_2283
CoB--CoM heterodisulfide reductase iron-sulfur			
subunit D	hdrD	5.86195	MCON_3042
excinuclease ABC subunit B	uvrB	5.85931	MCON_2713
sulfatase family protein		5.85928	MCON_2731
hypothetical protein		5.85914	MCON_0571
copper-translocating P-type ATPase		5.85754	MCON_0018
co-chaperone GrpE	grpE	5.85484	MCON_1038
TPR-repeat-containing protein		5.8541	MCON_0441
hypothetical protein		5.85385	MCON_0500
hypothetical protein		5.85148	MCON_3469
diaminopimelate epimerase	dapF	5.85024	MCON_0430
hypothetical protein		5.84673	MCON_1050
hypothetical protein		5.84507	MCON_1875
transferase hexapeptide repeat containing protein		5.84507	MCON_2575
glucosamine-6-phosphate synthase	glmS	5.83909	MCON_2582
YcfA-like protein		5.83736	MCON_3408
hypothetical protein		5.83497	MCON_2870
NDP-N-acetyl-D-galactosaminuronic acid			
dehydrogenase	epsD	5.83474	MCON_2576
lipoprotein		5.83113	MCON_3411
aspartate aminotransferase	aspC	5.82986	MCON_2279
hypothetical protein		5.82503	MCON_0786
hypothetical protein		5.8247	MCON_0218
ribonuclease P protein component 2	rnpB	5.8204	MCON_3149
hypothetical protein		5.81732	MCON_1381
DNA-binding protein		5.81321	MCON_2919
formate dehydrogenase subunit alpha	fdhA	5.81321	MCON_3277
bifunctional short chain isoprenyl diphosphate			
synthase	idsA	5.80688	MCON_2555
signal transduction histidine-protein kinase		5.80528	MCON_1632
RimK domain-containing protein ATP-grasp		5.80138	MCON_2282

methyltransferase		5.79965	MCON_3109
carbon monoxide dehydrogenase accessory protein	cooC	5.79921	MCON_1653
hypothetical protein		5.79871	MCON_1184
CopG family transcriptional regulator		5.79656	MCON_3291
acetyl-CoA hydrolase/N-GNAT family acetyltransferase fusion protein		5.79235	MCON_2951
cobalamin 5'-phosphate synthase	cobS	5.79097	MCON_1723
hypothetical protein		5.7901	MCON_0474
minichromosome maintenance protein MCM	mcm	5.78829	MCON_3179
hypothetical protein		5.78222	MCON_0874
phosphate ABC transporter permease	pstC	5.78188	MCON_1519
NAD-dependent malic enzyme		5.77883	MCON_1918
delta-aminolevulinic acid dehydratase	hemB	5.77424	MCON_1501
peptide methionine sulfoxide reductase MsrB/MsrA	msrAB	5.77126	MCON_0521
acetyl-coenzyme A synthetase	acsA	5.76906	MCON_0556
hypothetical protein		5.76812	MCON_0852
hypothetical protein		5.76763	MCON_3221
DNA-directed RNA polymerase subunit L	rpoL	5.767	MCON_3127
putative glutamate--cysteine ligase		5.76677	MCON_2280
cytochrome c biogenesis transmembrane protein		5.76074	MCON_3028
adenosylhomocysteinase	ahcY	5.75865	MCON_2922
hypothetical protein		5.75858	MCON_1165
exodeoxyribonuclease VII, large subunit	xseA	5.75499	MCON_1803
two-component hybrid sensor and regulator		5.7537	MCON_3111
hypothetical protein		5.75313	MCON_2715
hypothetical protein		5.75014	MCON_1771
hypothetical protein		5.74641	MCON_2853
aspartate aminotransferase	aspC	5.7462	MCON_2296
hypothetical protein		5.7459	MCON_0456
Mg/Co/Ni transporter MgtE domain-containing protein		5.74155	MCON_2834
ribonuclease II family protein		5.73981	MCON_1123
hypothetical protein		5.73159	MCON_2975
pantothenate synthetase		5.72755	MCON_3477
radical SAM domain-containing protein		5.7263	MCON_2444
hypothetical protein		5.72569	MCON_2818
hypothetical protein		5.72559	MCON_2779
hypothetical protein		5.7226	MCON_2204
3-dehydroquinate synthase	aroB	5.72164	MCON_1239
phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase	hisA	5.71962	MCON_0301
hypothetical protein		5.71892	MCON_0431
radical SAM domain-containing protein		5.71735	MCON_1244
hypothetical protein		5.71565	MCON_0580
Sep-tRNA:Cys-tRNA synthase	pscS	5.71489	MCON_0570

hypothetical protein		5.71445	MCON_0384
hypothetical protein		5.71096	MCON_1912
GHMP kinase ATP-binding protein		5.71011	MCON_3479
hypothetical protein		5.7073	MCON_2706
riboflavin synthase	ribC	5.70479	MCON_1631
hypothetical protein		5.69942	MCON_0115
ADP-ribosylglycohydrolase superfamily		5.69661	MCON_1452
N-acetyltransferase		5.69535	MCON_0283
membrane protein		5.69315	MCON_1021
hypothetical protein		5.69137	MCON_1544
PfkB domain-containing protein		5.69078	MCON_1689
indole-3-glycerol phosphate synthase	trpC	5.69047	MCON_1301
hypothetical protein		5.68977	MCON_2241
acetyl-coenzyme A synthetase	acsA	5.68926	MCON_2868
phosphodiesterase		5.68545	MCON_1044
radical SAM domain-containing protein		5.68471	MCON_0718
UbiA family prenyltransferase		5.68407	MCON_2978
hypothetical protein		5.68138	MCON_1538
thiamine biosynthesis/tRNA modification protein			
Thil	thil	5.67913	MCON_0451
hypothetical protein		5.67913	MCON_3199
hypothetical protein		5.67848	MCON_1602
hypothetical protein		5.67714	MCON_1106
triphosphoribosyl-dephospho-CoA synthase	citG	5.67514	MCON_0073
cupin domain-containing protein		5.67391	MCON_1786
30S ribosomal protein S6e	rpsF	5.67193	MCON_1146
heat shock protein Hsp20		5.67066	MCON_0707
hypothetical protein		5.67034	MCON_1730
histone acetyltransferase, ELP3 family protein		5.66957	MCON_1886
alpha glucan phosphorylase	agpA	5.66799	MCON_0098
GvpD gas vesicle	gvpD	5.6675	MCON_2869
hypothetical protein		5.66644	MCON_2041
hypothetical protein		5.6612	MCON_0016
SRP19 protein	srp19	5.6612	MCON_0911
TPR-repeat-containing protein		5.6612	MCON_1028
TM2 domain-containing protein		5.6612	MCON_1124
amino acid-binding ACT domain-containing protein		5.6612	MCON_1513
Ion transport protein		5.6612	MCON_1625
monovalent cation:proton antiporter-2 (CPA2) family transporter		5.6612	MCON_1789
hypothetical protein		5.6612	MCON_2904
sugar kinase		5.65717	MCON_0135
carbamoyl-phosphate synthase, large subunit	carB	5.65586	MCON_1025
phosphoribosylaminoimidazole-succinocarboxamide synthase	purC	5.65171	MCON_1441
hypothetical protein		5.64826	MCON_1514

phosphoribosyltransferase			5.64713	MCON_2032
ATP phosphoribosyltransferase	hisG		5.64625	MCON_1881
GXGXG motif protein			5.64413	MCON_1096
GNAT family acetyltransferase			5.64209	MCON_0828
hypothetical protein			5.64209	MCON_3320
ABC transporter			5.63821	MCON_1834
phenylalanyl-tRNA synthetase subunit alpha	pheS		5.63807	MCON_1974
hypothetical protein			5.63736	MCON_1545
TPR-repeat-containing protein			5.63706	MCON_1364
hypothetical protein			5.63379	MCON_2416
molybdenum cofactor synthesis domain-containing protein			5.63372	MCON_2021
hypothetical protein			5.63263	MCON_2039
nitrilase/cyanide hydratase and apolipoprotein N-acyltransferase			5.63146	MCON_1624
hypothetical protein			5.63051	MCON_0781
major facilitator family transporter			5.62811	MCON_0811
hypothetical protein			5.62726	MCON_3470
CbiM domain-containing protein			5.61938	MCON_2495
transposase, IS605 OrfB family			5.61848	MCON_3126
hypothetical protein			5.61813	MCON_2272
bifunctional protein Fold	fold		5.6154	MCON_0224
stage II sporulation SpoIE family protein			5.61411	MCON_0973
alpha-ribazole phosphatase	cobZ		5.61295	MCON_1724
PRC-barrel domain-containing protein			5.61058	MCON_3083
GTP-binding/TGS domain-containing protein			5.60874	MCON_2319
radical SAM domain-containing protein			5.60549	MCON_0027
glycosyl transferase, group 2 family protein			5.60118	MCON_0862
hypothetical protein			5.60045	MCON_0710
hypothetical protein			5.59847	MCON_1194
hypothetical protein			5.5929	MCON_0101
hypothetical protein			5.5832	MCON_3198
Radical SAM N-terminal domain-containing protein			5.5824	MCON_1402
hypothetical protein			5.57714	MCON_0588
molybdopterin-guanine dinucleotide biosynthesis protein			5.57455	MCON_0226
chromosome segregation and condensation				
protein ScpB	scpB		5.56809	MCON_2432
hypothetical protein			5.56643	MCON_0519
hypothetical protein			5.56336	MCON_1016
pyridoxamine 5'-phosphate oxidase family protein			5.56104	MCON_0213
DJ-1/PfpI family/rubredoxin fusion protein			5.56027	MCON_0317
hypothetical protein			5.55811	MCON_1464
radical SAM domain-containing protein			5.55758	MCON_2826
radical SAM domain-containing protein			5.55463	MCON_0700
YeeE/YedE family protein			5.54984	MCON_0108
hypothetical protein			5.54909	MCON_2850
hypothetical protein			5.54853	MCON_2647

homoisocitrate dehydrogenase	aksF	5.54799	MCON_1920
AsnC family transcriptional regulator		5.54573	MCON_1029
thioredoxin	trxB	5.54573	MCON_1214
hypothetical protein		5.54573	MCON_2828
hypothetical protein		5.54432	MCON_2494
AMP-dependent synthetase and ligase		5.54256	MCON_3363
dihydroorotate dehydrogenase, catalytic subunit	pyrD	5.54091	MCON_2335
translocator protein, LysE family		5.53921	MCON_2098
histidyl-tRNA synthetase	hisS	5.53856	MCON_2106
hypothetical protein		5.53835	MCON_0217
5'/3'-nucleotidase SurE	surE	5.53763	MCON_0299
FLAP endonuclease		5.53721	MCON_3423
hypothetical protein		5.53567	MCON_0408
hypothetical protein		5.53567	MCON_2010
TPR-repeat-containing protein		5.53467	MCON_0277
iron chelate uptake ABC transporter permease		5.53388	MCON_2219
arsenical-resistance protein	arsB	5.53107	MCON_3036
TPR-repeat-containing protein		5.52967	MCON_3500
UDP-N-acetylglucosamine 2-epimerase	wecB	5.52651	MCON_2577
tRNAHis guanylyltransferase		5.52555	MCON_3085
cupin 2 barrel domain-containing protein		5.52238	MCON_0026
SPFH domain/band 7 family protein		5.52223	MCON_2363
hypothetical protein		5.52162	MCON_0564
phosphoribosylglycinamide formyltransferase	purN	5.52088	MCON_2025
Rubredoxin-type Fe(Cys)4 protein		5.51825	MCON_0036
glutamyl-tRNA synthetase	gltX	5.51776	MCON_0144
alkylhydroperoxidase-like protein		5.51577	MCON_2897
adenine phosphoribosyltransferase	apt1	5.5092	MCON_2988
ArsR family transcriptional regulator		5.5092	MCON_3033
hypothetical protein		5.50812	MCON_3246
putative arsenical pump-driving ATPase	arsA	5.5044	MCON_2455
FeS cluster assembly scaffold protein NifU	nifU	5.49697	MCON_2655
peptidase C1A, papain		5.49535	MCON_0933
transposase, IS605 OrfB family		5.4927	MCON_0838
acylphosphatase		5.49128	MCON_0848
copG family protein anti-toxin protein		5.48433	MCON_0678
histidine-protein kinase		5.48405	MCON_3220
NUDIX family hydrolase		5.48396	MCON_2255
hypothetical protein		5.48261	MCON_0420
hypothetical protein		5.48188	MCON_2734
hypothetical protein		5.47629	MCON_2291
hypothetical protein		5.47433	MCON_0325
hypothetical protein		5.47358	MCON_2077
hypothetical protein		5.47358	MCON_2281
hypothetical protein		5.47151	MCON_0054
6,7-dimethyl-8-ribityllumazine synthase	ribH	5.47006	MCON_2295

hypothetical protein			5.46738	MCON_1640
DNA-directed RNA polymerase subunit H	rpoH		5.46595	MCON_1274
metal-dependent phosphohydrolase			5.46584	MCON_0575
TPR-repeat-containing protein			5.46536	MCON_0527
hypothetical protein			5.46417	MCON_0756
DNA polymerase IV 2	dph2		5.4631	MCON_2602
cation diffusion facilitator family transporter			5.4623	MCON_0694
hypothetical protein			5.45767	MCON_2422
hypothetical protein			5.45382	MCON_0552
hypothetical protein			5.45262	MCON_3263
3-dehydroquinate dehydratase	aroD		5.45217	MCON_1240
hypothetical protein			5.45175	MCON_0875
two-component hybrid sensor and regulator			5.45175	MCON_2375
hypothetical protein			5.45099	MCON_1002
peptidase M24			5.4501	MCON_1915
hypothetical protein			5.4457	MCON_0092
hypothetical protein			5.44547	MCON_1715
adenine deaminase	ade		5.44507	MCON_1251
integral membrane protein			5.4434	MCON_3209
hypothetical protein			5.44286	MCON_1635
hypothetical protein			5.44156	MCON_1697
hypothetical protein			5.44142	MCON_1921
ABC transporter			5.44085	MCON_2073
TPR-repeat-containing protein			5.43791	MCON_3504
hypothetical protein			5.43403	MCON_2877
acetylglutamate kinase	argB		5.43138	MCON_2654
glutaredoxin	grxA		5.43059	MCON_0020
methyltransferase			5.43059	MCON_2989
lysyl-tRNA synthetase	lysS		5.43013	MCON_1950
hypothetical protein			5.42947	MCON_3142
hypothetical protein			5.428	MCON_2452
hypothetical protein			5.428	MCON_2875
phosphoribosyl-AMP cyclohydrolase	hisI		5.42599	MCON_1969
argininosuccinate synthase	argG		5.42587	MCON_3352
ketol-acid reductoisomerase	ilvC		5.42572	MCON_0412
hypothetical protein			5.421	MCON_1215
response regulator receiver domain-containing protein			5.41728	MCON_2134
ABC transporter ATP-binding protein			5.4167	MCON_1114
hypothetical protein			5.41609	MCON_0452
hypothetical protein			5.41477	MCON_1721
hypothetical protein			5.41477	MCON_2198
3-hexulose-6-phosphate synthase			5.41456	MCON_0429
membrane protein			5.41429	MCON_0491
nucleoside-triphosphatase			5.41429	MCON_0926
acylphosphatase			5.41429	MCON_3294
hypothetical protein			5.41328	MCON_1365

hypothetical protein		5.41292	MCON_0021
hypothetical protein		5.41218	MCON_1570
Radical SAM domain-containing protein		5.40966	MCON_2610
7,8-didemethyl-8-hydroxy-5-deazariboflavin synthase, CofH subunit	cofH	5.40792	MCON_3335
prephenate dehydrogenase	tyrA	5.40689	MCON_3307
universal stress protein		5.40639	MCON_2453
Na ⁺ /solute symporter		5.40182	MCON_1148
dTDP-glucose 4,6-dehydratase	rfbB	5.40162	MCON_2593
protein-L-isoaspartate O-methyltransferase	pcm	5.40089	MCON_2721
lipoprotein-releasing system, ABC transporter permease	lolE	5.39817	MCON_1286
glutamyl-tRNA reductase	hemA	5.39666	MCON_1502
hypothetical protein		5.39666	MCON_2023
transcriptional regulator TrmB		5.39606	MCON_1556
hypothetical protein		5.39554	MCON_0706
glycosyl transferase, group 1 family protein		5.39351	MCON_1350
DNA ligase	ligA	5.39142	MCON_0798
TRAM domain-containing protein		5.39056	MCON_3332
lipoprotein		5.3899	MCON_1013
hypothetical protein		5.38526	MCON_2972
hypothetical protein		5.38514	MCON_0019
FKBP-type peptidylprolyl isomerase	mtfK	5.38469	MCON_2633
chromosome segregation and condensation			
protein ScpA	scpA	5.38198	MCON_2441
hypothetical protein		5.38163	MCON_1266
OB-fold nucleic acid binding domain-containing protein		5.37943	MCON_2842
TPR-repeat-containing protein		5.37754	MCON_3486
formate dehydrogenase family accessory protein			
FdhD	fdhD	5.37741	MCON_2760
small conductance mechanosensitive ion channel (MscS)			
family transporter		5.37656	MCON_2830
coenzyme F420 hydrogenase subunit beta	frhB	5.37502	MCON_2320
hypothetical protein		5.37432	MCON_3297
transposase, IS605 OrfB family		5.3717	MCON_1890
hypothetical protein		5.36164	MCON_0045
carbamoyl-phosphate synthase, large subunit	carB	5.36133	MCON_0086
putative Ski2-type helicase		5.35789	MCON_2417
hypothetical protein		5.35742	MCON_1655
hypothetical protein		5.35579	MCON_0097
hypothetical protein		5.35308	MCON_0390
TrkA-C domain-containing protein		5.35203	MCON_2373
radical SAM domain-containing protein		5.35188	MCON_1154
zinc finger protein ZPR1-like protein		5.34874	MCON_1061
phosphoesterase, RecJ domain-containing protein		5.34846	MCON_2356
natural resistance-associated macrophage protein		5.34774	MCON_2833

exodeoxyribonuclease III	exoA	5.34346	MCON_0422
prephenate dehydratase	tyrA	5.34323	MCON_2639
arginyl-tRNA synthetase	argS	5.34313	MCON_1180
hypothetical protein		5.34313	MCON_3128
transposase, OrfB family		5.34238	MCON_1424
hypothetical protein		5.33928	MCON_0834
hypothetical protein		5.33819	MCON_1313
lipoprotein-releasing system, ABC transporter ATP-binding protein	lolD	5.33788	MCON_1288
4Fe-4S binding domain-containing protein		5.3351	MCON_2866
molybdenum cofactor biosynthesis protein C	moaC	5.33422	MCON_1531
hypothetical protein		5.33315	MCON_2208
hypothetical protein		5.3319	MCON_1722
hypothetical protein		5.3319	MCON_2878
hypothetical protein		5.32678	MCON_1629
transposase, IS605 OrfB family		5.32678	MCON_3164
hypothetical protein		5.32478	MCON_3105
histidine triad (HIT) protein		5.32189	MCON_2026
hypothetical protein		5.32189	MCON_3132
YVTN family beta-propeller repeat-containing protein		5.32164	MCON_1092
hypothetical protein		5.32017	MCON_3233
tyrosyl-tRNA synthetase	tyrS	5.31656	MCON_0228
Na+/solute symporter		5.31353	MCON_2067
F420-dependent			
methylenetetrahydromethanopterin dehydrogenase	mtd	5.3128	MCON_1052
hypothetical protein		5.31205	MCON_1769
glycosyl transferase, group 1 family protein		5.31149	MCON_1459
phenylacetate-coenzyme A ligase	paaK	5.30973	MCON_2332
TPR-repeat-containing protein		5.3091	MCON_3467
multi-sensor hybrid histidine kinase		5.30837	MCON_1639
hypothetical protein		5.30427	MCON_1047
CBS domain-containing protein		5.30188	MCON_1976
archaeal histone	hfoA	5.30131	MCON_1516
NADH oxidase		5.29863	MCON_0376
family 5 extracellular solute-binding protein		5.29863	MCON_2385
Na+/solute symporter		5.29732	MCON_1666
hypothetical protein		5.29621	MCON_2330
NAD(+)/NADH kinase		5.29533	MCON_2512
transposase integrase		5.29256	MCON_0645
Myo-inositol-1-phosphate synthase		5.29102	MCON_0025
alpha-acetolactate decarboxylase	budA	5.2886	MCON_0316
crispr-associated protein Cas1	cas1	5.28823	MCON_3378
glycosyl transferase, group 2 family protein		5.28316	MCON_1217
prefoldin subunit beta		5.2815	MCON_3159
iron sulfur cluster/nucleotide binding domain-containing		5.28117	MCON_0698

protein			
hypothetical protein		5.28093	MCON_0934
methylase		5.28011	MCON_1696
cation ABC transporter ATP-binding protein		5.27985	MCON_3449
peptidase M50		5.27816	MCON_1658
nucleotidyl transferase		5.27654	MCON_1831
small multidrug export protein		5.27347	MCON_0070
hypothetical protein		5.27185	MCON_2313
lipoprotein		5.26988	MCON_0821
hypothetical protein		5.26527	MCON_0590
dCMP deaminase		5.26478	MCON_1948
hydrophobe/amphiphile efflux-3 (HAE3) family efflux transporter		5.26096	MCON_2817
hypothetical protein		5.25164	MCON_3084
dTDP-4-dehydrorhamnose reductase	rfbD	5.25112	MCON_2591
hypothetical protein		5.24939	MCON_0309
hypothetical protein		5.24617	MCON_0029
hypothetical protein		5.24617	MCON_1183
formaldehyde-activating enzyme	faeA	5.2376	MCON_1033
moeB/thiF molybdopterin or thiamine synthase protein		5.23419	MCON_0245
rhodanese domain-containing protein		5.23349	MCON_3231
ribonuclease P protein component 3	rnpC	5.23334	MCON_3148
class II aldolase/adducin family protein		5.23181	MCON_1374
2,3-bisphosphoglycerate-independent phosphoglycerate mutase	gpmI	5.22909	MCON_2722
oxidoreductase, NAD-binding protein		5.22654	MCON_3362
hypothetical protein		5.22627	MCON_0750
hypothetical protein		5.22308	MCON_1581
cobalt ABC transporter permease	cbiQ	5.22293	MCON_3074
hypothetical protein		5.22232	MCON_1060
glycosyl transferase, group 1 family protein		5.2171	MCON_0425
iron-sulfur flavoprotein	isfB	5.21579	MCON_0014
hypothetical protein		5.21469	MCON_3348
DNA polymerase 2	polB2	5.21345	MCON_2011
ribose-1,5-bisphosphate isomerase, e2b2 family		5.21332	MCON_0206
SNF2 family helicase		5.21235	MCON_0106
heat shock protein Hsp20		5.21222	MCON_1156
hypothetical protein		5.20803	MCON_0870
DOMON domain-containing protein		5.2079	MCON_0703
hypothetical protein		5.20435	MCON_0100
acetylornithine aminotransferase	argD	5.20412	MCON_1613
dimethyladenosine transferase	ksgA	5.19886	MCON_2754
hypothetical protein		5.1978	MCON_2420
phosphoesterase		5.1978	MCON_3203
rhomboid family protein		5.19641	MCON_2616
thiamine-phosphate pyrophosphorylase	thiE	5.18727	MCON_3369

hypothetical protein		5.18604	MCON_0941
hypothetical protein		5.18541	MCON_0023
GPR1/FUN34/YaaH family protein		5.18477	MCON_2287
50S ribosomal protein L24 domain-containing protein		5.18477	MCON_2692
Toxic anion resistance protein	telA	5.18343	MCON_0404
hypothetical protein		5.18008	MCON_1687
putative ATP-dependent helicase		5.17719	MCON_2852
glutamine-dependent NAD(+) synthetase	nadE	5.17368	MCON_1866
RNA-metabolising metallo-beta-lactamase		5.17319	MCON_2556
radical SAM domain family protein		5.1731	MCON_0537
NAD(P)H dehydrogenase (quinone)		5.17292	MCON_1129
transposase, IS605 OrfB family		5.17115	MCON_1791
hypothetical protein		5.16981	MCON_2360
hypothetical protein		5.16935	MCON_1773
precorrin-8X methylmutase	cbiC	5.16892	MCON_1680
hypothetical protein		5.16739	MCON_1894
Ser/Thr protein phosphatase family protein		5.16673	MCON_2778
phenylacrylic acid decarboxylase		5.16644	MCON_3057
hypothetical protein		5.16275	MCON_0400
hypothetical protein		5.1624	MCON_1970
hypothetical protein		5.16059	MCON_1717
tRNA pseudouridine synthase A	truA	5.1587	MCON_1321
PBS lyase HEAT domain repeat-containing protein		5.15641	MCON_2827
hypothetical protein		5.15613	MCON_3145
efflux ABC transporter permease		5.15608	MCON_2040
ArsR family transcriptional regulator		5.15556	MCON_2991
hypothetical protein		5.15424	MCON_1677
aspartate aminotransferase	aspC	5.15283	MCON_3113
succinate-semialdehyde dehydrogenase	gabD	5.15265	MCON_2755
periplasmic copper-binding protein		5.15184	MCON_1369
glutamyl-tRNA(Gln) amidotransferase subunit C	gatC	5.15101	MCON_0311
geranylgeranyl reductase		5.15033	MCON_1147
putative molybdenum cofactor biosynthesis			
protein A	moaA	5.1493	MCON_2449
Met10+ like methyltransferase		5.14663	MCON_1956
hypothetical protein		5.1436	MCON_3309
transposase domain-containing protein		5.13925	MCON_0594
amidohydrolase		5.13836	MCON_0172
ribose 5-phosphate isomerase	rpiA	5.13687	MCON_3136
TPR-repeat-containing protein		5.13276	MCON_3503
hypothetical protein		5.13235	MCON_0375
hypothetical protein		5.13069	MCON_0233
hypothetical protein		5.13069	MCON_0918
beta-lactamase domain-containing protein		5.13069	MCON_3342
hypothetical protein		5.12184	MCON_0532
hypothetical protein		5.12162	MCON_2758

radical SAM domain-containing protein		5.12101	MCON_1343
hypothetical protein		5.11937	MCON_2230
hypothetical protein		5.1129	MCON_0122
FeoA domain-containing protein		5.11231	MCON_0680
hypothetical protein		5.1074	MCON_2714
family 2 glycosyl transferase		5.10676	MCON_0724
hypothetical protein		5.10661	MCON_2497
CoB-CoM heterodisulfide reductase subunit B	hdrB	5.10661	MCON_3283
aspartyl/glutamyl-tRNA(Asn/Gln)			
amidotransferase subunit B	gatB	5.10499	MCON_0313
hypothetical protein		5.10321	MCON_0439
hypothetical protein		5.09642	MCON_1753
HD domain-containing protein		5.09561	MCON_0466
hypothetical protein		5.09522	MCON_0222
putative cobalt-precorrin-6A synthase (deacetylating)		5.0951	MCON_1679
hypothetical protein		5.09375	MCON_0548
S-layer-related duplication domain-containing protein		5.09287	MCON_0504
TPR-repeat-containing protein		5.09236	MCON_3495
hypothetical protein		5.08629	MCON_2955
putative methanogenesis marker 16 metalloprotein		5.08121	MCON_2820
cobyricin Acid a,c-diamide synthase	cobB1	5.07933	MCON_0502
hypothetical protein		5.07624	MCON_1671
lipoprotein		5.07624	MCON_2042
zinc/iron ZIP family permease		5.07053	MCON_0692
hypothetical protein		5.07032	MCON_0784
hypothetical protein		5.06848	MCON_1867
integral membrane protein		5.06605	MCON_0595
hypothetical protein		5.06357	MCON_1160
hypothetical protein		5.0603	MCON_3276
TPR-repeat-containing protein		5.05205	MCON_3511
hypothetical protein		5.05071	MCON_1095
formylmethanofuran dehydrogenase subunit D	fmdD	5.04886	MCON_0239
ribonuclease HII	rnhB	5.04863	MCON_2507
hypothetical protein		5.04739	MCON_0827
DEAD/DEAH box helicase domain-containing protein		5.04567	MCON_3344
RNA methylase family protein		5.0266	MCON_2920
alpha glucan phosphorylase		5.02638	MCON_2876
glutamine amidotransferase, class-II		5.02506	MCON_0130
sodium/hydrogen exchanger		5.0187	MCON_1788
cobalt import ATP-binding protein	cbiO	5.01668	MCON_1807
cation periplasmic solute binding protein		5.01653	MCON_3450
fumarylacetate hydrolase family protein		5.01587	MCON_2337
putative methanogenesis marker protein 8		5.01351	MCON_1554
hypothetical protein		5.00913	MCON_0857
RDD domain-containing protein		5.00913	MCON_1784
fkbp-type peptidyl-prolyl cis-trans isomerase	mtfK	5.00776	MCON_0031

cell surface protein		5.00683	MCON_2008
RelE/StbE family addiction module toxin		5.0067	MCON_0679
hypothetical protein		5.00271	MCON_1193
ABC transporter ATP-binding protein		4.99973	MCON_1835
hypothetical protein		4.9952	MCON_3237
hypothetical protein		4.99378	MCON_0545
thioesterase superfamily protein		4.99319	MCON_1889
phosphate binding protein		4.9904	MCON_3475
sulfopyruvate decarboxylase subunit beta	comE	4.98467	MCON_2821
putative snoRNA binding domain-containing protein		4.98119	MCON_1552
PA-phosphatase-like phosphoesterase		4.97965	MCON_1117
2-oxoglutarate ferredoxin oxidoreductase subunit beta	korB	4.97906	MCON_2659
formylmethanofuran dehydrogenase subunit C	fmdC	4.97671	MCON_0240
hypothetical protein		4.97608	MCON_2578
peptide ABC transporter permease		4.97608	MCON_3435
queuosine biosynthesis protein QueD	queD	4.97315	MCON_1447
cobalamin biosynthesis protein	cobD	4.96606	MCON_1335
DNA polymerase II, large subunit DP2	polC	4.96551	MCON_2264
adenylyl cyclase CyaB		4.96488	MCON_1159
metallo-beta-lactamase domain-containing protein		4.96439	MCON_3139
dihydroorotase	pyrC	4.96237	MCON_1192
hypothetical protein		4.96076	MCON_0236
hypothetical protein		4.96076	MCON_0826
hypothetical protein		4.96076	MCON_1783
hypothetical protein		4.95792	MCON_3197
hypothetical protein		4.95414	MCON_2427
catalase	katA	4.95338	MCON_0161
hypothetical protein		4.95338	MCON_2529
hypothetical protein		4.95302	MCON_3204
rhodanese domain-containing protein		4.95037	MCON_1376
aspartate carbamoyltransferase	pyrB	4.94808	MCON_2631
fumarase subunit alpha	fumA	4.94808	MCON_2973
Fe-S cluster domain-containing protein		4.94577	MCON_3037
hypothetical protein		4.945	MCON_1879
hypothetical protein		4.945	MCON_3273
hypothetical protein		4.9436	MCON_1496
DNA-binding protein Alba	albA2	4.9395	MCON_0727
hypothetical protein		4.93911	MCON_0286
hypothetical protein		4.93874	MCON_0825
hypothetical protein		4.93684	MCON_1865
nucleoside diphosphate kinase	ndk	4.93422	MCON_1703
membrane protein		4.93228	MCON_2656
branched-chain amino acid aminotransferase	ilvE	4.92922	MCON_2293
hypothetical protein		4.92868	MCON_0168
hypothetical protein		4.92424	MCON_0074

hypothetical protein		4.92424	MCON_1748
hypothetical protein		4.92424	MCON_3173
hypothetical protein		4.91984	MCON_2880
peptide ABC transporter permease		4.91974	MCON_3434
N-acetyl-gamma-glutamyl-phosphate reductase	argC	4.91578	MCON_1453
ApbC/Nbp35 iron-sulfur cluster carrier protein	apbC	4.91449	MCON_0751
hypothetical protein		4.91147	MCON_0307
galactose-1-phosphate uridylyltransferase		4.91098	MCON_1484
hypothetical protein		4.9083	MCON_3078
S1 RNA binding domain-containing protein		4.90594	MCON_2464
TRAM domain-containing protein		4.90513	MCON_3331
hypothetical protein		4.90447	MCON_1267
hypothetical protein		4.90377	MCON_1121
metallo-beta-lactamase domain-containing protein		4.90377	MCON_1612
glyoxalase family protein		4.90377	MCON_2733
AbpC/Nbp35 iron-sulfur cluster carrier protein	abpC	4.90377	MCON_2825
hypothetical protein		4.90103	MCON_2718
hypothetical protein		4.89702	MCON_0156
di-trans,poly-cis-decaprenylcistransferase	uppS	4.89622	MCON_0296
hypothetical protein		4.89069	MCON_0748
periplasmic binding protein		4.88905	MCON_1628
hypothetical protein		4.88861	MCON_1883
hypothetical protein		4.88627	MCON_2090
methyltransferase domain-containing protein		4.88498	MCON_2665
putative methanogenesis marker 16 metalloprotein		4.88262	MCON_0457
30S ribosomal protein S24e	rpsX	4.88159	MCON_3183
glutamate synthase	gltB	4.88074	MCON_0131
hypothetical protein		4.87693	MCON_2526
Na+/solute symporter		4.87308	MCON_1670
extracellular protein		4.87021	MCON_3501
AIR carboxylase	purE	4.86765	MCON_2643
NAD dependent epimerase/dehydratase		4.85712	MCON_1221
hypothetical protein		4.85571	MCON_0389
hypothetical protein		4.85385	MCON_1497
ferredoxin		4.85385	MCON_3023
acylphosphatase		4.8511	MCON_0146
hypothetical protein		4.85024	MCON_0470
chorismate mutase	pheA	4.84624	MCON_2644
hypothetical protein		4.84507	MCON_2358
thiamine biosynthesis protein ThiC	thiC	4.84455	MCON_1170
hypothetical protein		4.84205	MCON_2027
hypothetical protein		4.83808	MCON_0776
NADH dehydrogenase (ubiquinone), 24 kDa subunit		4.83736	MCON_3101
excinuclease ABC subunit A	uvrA	4.8365	MCON_0473
2-dehydropantoate 2-reductase	panE	4.83404	MCON_1934
hypothetical protein		4.83113	MCON_2277

peptidase, ArgE/DapE family		4.83113	MCON_2723
nucleotidyltransferase		4.82663	MCON_1302
aconitate hydratase		4.82532	MCON_0341
hypothetical protein		4.8247	MCON_2093
hypothetical protein		4.81732	MCON_2901
hypothetical protein		4.81512	MCON_1118
hypothetical protein		4.81461	MCON_2748
hypothetical protein		4.81399	MCON_3463
hypothetical protein		4.81321	MCON_1688
hypothetical protein		4.81103	MCON_0768
citrate transporter		4.80759	MCON_3459
hypothetical protein		4.80138	MCON_1574
hypothetical protein		4.80091	MCON_1826
dihydropteroate synthase	folP	4.79185	MCON_3444
putative K+-dependent Na+/Ca++ exchanger-like protein		4.78889	MCON_1790
hypothetical protein		4.78673	MCON_3251
hypothetical protein		4.78673	MCON_3472
hypothetical protein		4.78206	MCON_1878
hypothetical protein		4.7815	MCON_1446
dTDP-4-dehydrorhamnose 3,5-epimerase	rfbC	4.77802	MCON_2590
hypothetical protein		4.77486	MCON_1686
30S ribosomal protein S27a	rpmA	4.77486	MCON_3182
PUA domain-containing protein		4.77323	MCON_1203
hypothetical protein		4.77223	MCON_0833
hypothetical protein		4.77223	MCON_1305
cobalt chelatase	cbiK	4.77223	MCON_2896
type III restriction enzyme, res subunit		4.77153	MCON_2054
deoxyribodipyrimidine photo-lyase	phr	4.76719	MCON_0212
hypothetical protein		4.76504	MCON_0802
hypothetical protein		4.7643	MCON_2909
hypothetical protein		4.75678	MCON_0546
hypothetical protein		4.75678	MCON_2048
zinc finger, swim domain-containing protein		4.75492	MCON_0105
phenylacetate-coenzyme A ligase	paak	4.75263	MCON_1112
hypothetical protein		4.7514	MCON_2168
hypothetical protein		4.74367	MCON_0551
ABC transporter ATP-binding protein		4.7422	MCON_0685
transposase, IS605 OrfB family		4.74027	MCON_0160
M6 family metalloprotease domain-containing protein		4.73656	MCON_0030
methyltransferase		4.73405	MCON_3017
hypothetical protein		4.72911	MCON_3053
hypothetical protein		4.71747	MCON_0647
FeoA domain-containing protein		4.71011	MCON_3299
precorrin-8X methylmutase	cbiC	4.70873	MCON_0651
N-GNAT family acetyltransferase		4.70643	MCON_3354
amidohydrolase family protein		4.69895	MCON_2923

hypothetical protein		4.69868	MCON_3158
2,3-bisphosphoglycerate-dependent phosphoglycerate mutase	gpmA	4.68895	MCON_1404
cobalt ABC transporter permease	cbiQ	4.68817	MCON_1806
CDP-diacylglycerol--serine O-phosphatidyltransferase	pssA	4.68674	MCON_0461
IS66 family element, transposase		4.68413	MCON_2851
NAD(+)/NADH kinase		4.68181	MCON_2072
hypothetical protein		4.67891	MCON_2664
hypothetical protein		4.67848	MCON_2425
GTP-binding protein HfIX	hfIX	4.67501	MCON_0914
hypothetical protein		4.6728	MCON_2672
hypothetical protein		4.67193	MCON_3367
putative methanogenesis marker 13 metalloprotein		4.66898	MCON_1930
ABC transporter ATP-binding protein		4.66622	MCON_2216
hypothetical protein		4.6612	MCON_0047
hypothetical protein		4.6612	MCON_0280
heavy metal-associated domain-containing protein		4.6612	MCON_0379
lipoprotein		4.6612	MCON_1175
hypothetical protein		4.6612	MCON_1615
DNA primase small subunit	priS	4.6612	MCON_1623
extracellular nuclease		4.6612	MCON_2244
RNA 3'-phosphate cyclase	rtcA	4.6612	MCON_3080
methyltransferase domain family		4.6562	MCON_2221
hypothetical protein		4.65569	MCON_2440
uracil DNA glycosylase		4.65371	MCON_1319
PIN domain-containing protein		4.65264	MCON_1539
Fur family transcriptional regulator		4.65233	MCON_2614
hypothetical protein		4.6486	MCON_0331
apurinic-apyrimidinic endonuclease	apn	4.64594	MCON_1877
hypothetical protein		4.64282	MCON_1188
hypothetical protein		4.64209	MCON_2445
hypothetical protein		4.64184	MCON_3140
hypothetical protein		4.63951	MCON_2199
hypothetical protein		4.63736	MCON_3092
translin family protein		4.62627	MCON_3134
hypothetical protein		4.62558	MCON_1474
hypothetical protein		4.62293	MCON_2789
NOL1/NOP2/sun family RNA methylase		4.62247	MCON_3333
peptidase U32		4.62139	MCON_2079
hypothetical protein		4.61973	MCON_0120
F420-0:gamma-glutamyl ligase	cofE	4.61973	MCON_0919
rbrerythrin	rbrA	4.6154	MCON_0162
TPR-repeat-containing protein		4.6143	MCON_2790
phosphate ABC transporter permease	pstA	4.61182	MCON_1520
copper-translocating P-type ATPase		4.61145	MCON_1356

hypothetical protein		4.61042	MCON_2112
hypothetical protein		4.60874	MCON_1243
hypothetical protein		4.60757	MCON_2359
hypothetical protein		4.60462	MCON_1900
amino acid permease		4.60396	MCON_3234
cache domain-containing protein		4.60108	MCON_3087
sirohydrochlorin cobaltochelatase	cbiX	4.59409	MCON_1928
hypothetical protein		4.58982	MCON_1895
hypothetical protein		4.58905	MCON_1854
hypothetical protein		4.58905	MCON_2749
sodium:neurotransmitter symporter family protein		4.58879	MCON_2628
nitrogenase iron protein 1	nifH	4.58497	MCON_0503
ABC transporter permease		4.58071	MCON_0468
hypothetical protein		4.58058	MCON_0319
hypothetical protein		4.57675	MCON_2378
iron-sulfur cluster-binding protein		4.57581	MCON_2043
TfuA-like protein		4.56544	MCON_2771
hypothetical protein		4.56434	MCON_2129
lipoprotein		4.55884	MCON_0406
hypothetical protein		4.55585	MCON_3405
geranylgeranyl reductase		4.55119	MCON_3250
hypothetical protein		4.55056	MCON_0787
filamentation induced by cAMP protein Fic		4.54956	MCON_2673
B12 binding domain/radical SAM domain fusion protein		4.54819	MCON_1837
chloride channel (CIC) family chloride transporter		4.54697	MCON_2933
hypothetical protein		4.54573	MCON_0099
FAD linked oxidase		4.54573	MCON_3046
cation transporting P-type ATPase		4.54319	MCON_1764
hypothetical protein		4.54061	MCON_1904
methionine aminopeptidase	map	4.53835	MCON_1914
hypothetical protein		4.53721	MCON_1659
aspartate aminotransferase	aspC	4.52996	MCON_2775
cupin domain-containing protein		4.52627	MCON_3138
appr-1-p processing enzyme family		4.52034	MCON_3110
Xaa-Pro dipeptidase	pepQ	4.51778	MCON_2958
inositol-1-monophosphatase family protein		4.51096	MCON_2071
YHS domain-containing protein		4.5092	MCON_0017
hypothetical protein		4.49893	MCON_3013
hypothetical protein		4.49484	MCON_3019
hypothetical protein		4.493	MCON_0150
cobalt transport protein	cbiN	4.49128	MCON_1805
TPR-repeat-containing protein		4.48983	MCON_3493
methylase involved in ubiquinone/menaquinone biosynthesis		4.48367	MCON_0689
hypothetical protein		4.47511	MCON_1676
putative H4MPT-linked C1 transfer pathway protein		4.47217	MCON_2321
hypothetical protein		4.46967	MCON_2946

hypothetical protein		4.46326	MCON_2088
fumarase subunit beta	fumB	4.46279	MCON_2974
hypothetical protein		4.46256	MCON_2847
aldo/keto reductase		4.46242	MCON_0053
hypothetical protein		4.46189	MCON_3161
Na+/solute symporter		4.45796	MCON_0387
hypothetical protein		4.45767	MCON_1896
membrane-bound metal-dependent hydrolase		4.45539	MCON_0888
hypothetical protein		4.45175	MCON_0687
MATE efflux family protein		4.45117	MCON_2712
oxidoreductase FAD/NAD		4.44999	MCON_2336
hypothetical protein		4.4497	MCON_0385
hypothetical protein		4.44915	MCON_2438
hypothetical protein		4.44843	MCON_2362
TPR-repeat-containing protein		4.44602	MCON_3502
tungsten formylmethanofuran dehydrogenase subunit E	fwdE	4.44424	MCON_0953
hypothetical protein		4.43881	MCON_3457
ATP-dependent RNA helicase	rhlE	4.43544	MCON_2107
rhodanese domain-containing protein		4.42879	MCON_3034
Ion transport protein		4.4245	MCON_0328
AbrB family transcriptional regulator		4.42304	MCON_3018
indolepyruvate ferredoxin oxidoreductase subunit alpha	iorA	4.42174	MCON_1345
hypothetical protein		4.421	MCON_3337
hypothetical protein		4.41609	MCON_1109
transcription factor TFIID	tbpA	4.41609	MCON_3427
NAD-dependent epimerase/dehydratase		4.40966	MCON_1457
beta-lactamase domain-containing protein		4.40696	MCON_3079
hypothetical protein		4.40486	MCON_1929
imidazoleglycerol phosphate synthase, cyclase subunit	hisF	4.40134	MCON_0619
phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase-like protein		4.40068	MCON_2256
transposase, IS605 OrfB family		4.3892	MCON_3206
hypothetical protein		4.38818	MCON_1992
ABC transporter substrate-binding protein		4.3862	MCON_0369
hypothetical protein		4.3811	MCON_0102
GTP-binding protein		4.37917	MCON_1695
GTP-binding protein		4.37675	MCON_2829
alanyl-tRNA synthetase domain-containing protein		4.3758	MCON_2735
YeeE/YedE family protein		4.37432	MCON_0107
arginine biosynthesis bifunctional protein ArgJ	argJ	4.37417	MCON_1455
ectoine synthase	ectC	4.3717	MCON_1198
anaerobic ribonucleoside-triphosphate reductase activating protein		4.36997	MCON_2415

methyltransferase		4.36702	MCON_0368
DNA methylase		4.35906	MCON_2055
hypothetical protein		4.35864	MCON_3373
hypothetical protein		4.35308	MCON_2802
tRNA/helicase-type nucleic acid-binding protein		4.35	MCON_2390
hypothetical protein		4.34494	MCON_1932
universal stress protein		4.33928	MCON_0159
hypothetical protein		4.33928	MCON_0740
hypothetical protein		4.33928	MCON_1000
hypothetical protein		4.33928	MCON_1832
iron-sulfur protein		4.33928	MCON_2780
PHP domain/helix-hairpin-helix motif protein		4.33803	MCON_0553
hypothetical protein		4.33653	MCON_0469
hypothetical protein		4.3319	MCON_0334
thiamine-monophosphate kinase	thiL	4.32759	MCON_3190
hypothetical protein		4.32017	MCON_0832
small conductance mechanosensitive ion channel (MscS)			
family transporter		4.31758	MCON_3115
IS66 family element, transposase		4.3144	MCON_2211
hypothetical protein		4.31418	MCON_2466
glycosyl transferase family protein		4.31241	MCON_0069
hypothetical protein		4.30998	MCON_0482
cation transport protein		4.30936	MCON_3116
hypothetical protein		4.30899	MCON_2376
permease		4.30091	MCON_2987
NADPH-dependent F420 reductase	npdG	4.29679	MCON_1371
hypothetical protein		4.29545	MCON_0998
alanine dehydrogenase	ala	4.29419	MCON_0907
RelE/StbE family addiction module toxin		4.29197	MCON_1761
4Fe-4S ferredoxin, iron-sulfur binding domain-containing protein		4.28681	MCON_0134
GTP-binding domain/transporter gate domain-containing protein		4.28371	MCON_0681
hypothetical protein		4.28269	MCON_0335
hypothetical protein		4.28269	MCON_0347
small conductance mechanosensitive ion channel (MscS)			
family transporter		4.28011	MCON_1115
oligopeptide ABC transporter ATP-binding protein	appF	4.27293	MCON_2196
hypothetical protein		4.27254	MCON_0372
extracellular nuclease		4.27251	MCON_2935
diaminohydroxyphosphoribosylaminopyrimidine reductase	ribD	4.26562	MCON_0173
TPR-repeat-containing protein		4.26562	MCON_0931
rubrerythrin	rbrB	4.26344	MCON_1634
iron-sulfur cluster/F420 dehydrogenase/hydrogenase fusion protein		4.26127	MCON_3104

phosphoadenosine phosphosulfate reductase		4.25975	MCON_2461
acetyltransferase		4.25478	MCON_0284
daunorubicin resistance ABC transporter ATP-binding protein	drrA	4.25439	MCON_2250
transposase, IS605 OrfB family		4.25001	MCON_2603
dinitrogenase iron-molybdenum cofactor biosynthesis protein		4.24617	MCON_0696
hypothetical protein		4.24617	MCON_1232
hypothetical protein		4.24617	MCON_1306
hypothetical protein		4.24617	MCON_2035
hypothetical protein		4.24617	MCON_3121
hypothetical protein		4.24617	MCON_3238
hypothetical protein		4.24027	MCON_2726
hypothetical protein		4.2378	MCON_2022
transposase, IS200-like MITE		4.2356	MCON_0839
hypothetical protein		4.22986	MCON_0488
hypothetical protein		4.22824	MCON_2240
glycosyl transferase group 1 family protein		4.21642	MCON_1226
iron-sulfur flavoprotein	isfA	4.21642	MCON_3082
CoA-binding domain-containing protein		4.21469	MCON_2796
pyridoxamine 5'-phosphate oxidase family protein		4.20435	MCON_0417
PIN domain-containing protein		4.20435	MCON_3274
hypothetical protein		4.20177	MCON_1846
bacterioferritin comigratory protein Bcp		4.19947	MCON_2837
divergent AAA domain family		4.19734	MCON_2926
hypothetical protein		4.19433	MCON_3492
hypothetical protein		4.19408	MCON_1765
hypothetical protein		4.18958	MCON_2414
tetrahydromethanopterin:alpha-L-glutamate ligase	mptN	4.18727	MCON_0555
queuine tRNA-ribosyltransferase	tgt	4.18727	MCON_2663
major facilitator family transporter		4.18612	MCON_2742
hypothetical protein		4.18518	MCON_2234
tungsten formylmethanofuran dehydrogenase subunit E	fwdE	4.17727	MCON_2898
hypothetical protein		4.17578	MCON_0528
aspartate carbamoyltransferase, regulatory subunit	pyrl	4.17578	MCON_2632
orotidine 5'-phosphate decarboxylase	pyrF	4.16525	MCON_2465
HMG-CoA synthase		4.16334	MCON_3359
sodium bile acid symporter family		4.16113	MCON_2099
hypothetical protein		4.1587	MCON_1003
PRC-barrel domain-containing protein		4.1587	MCON_1253
NADH:ubiquinone oxidoreductase, nadh-binding subunit	nuoF	4.1587	MCON_3103
nitrogenase molybdenum-iron protein beta chain	nifK	4.15372	MCON_0613
hypothetical protein		4.15101	MCON_0235
nitrogenase molybdenum-iron protein beta chain	nifK	4.15072	MCON_0611

CobN/magnesium chelatase domain-containing protein		4.14995	MCON_2203
hypothetical protein		4.14813	MCON_1116
cobyric acid synthase	cobQ	4.14582	MCON_2599
hypothetical protein		4.1438	MCON_0873
SPP-like hydrolase		4.14307	MCON_3141
hypothetical protein		4.14183	MCON_0194
hypothetical protein		4.13764	MCON_0348
hypothetical protein		4.13069	MCON_1744
hypothetical protein		4.13069	MCON_2275
hypothetical protein		4.12515	MCON_0891
hypothetical protein		4.12278	MCON_1187
hypothetical protein		4.12278	MCON_3097
hypothetical protein		4.12278	MCON_3178
hypothetical protein		4.11688	MCON_2457
TetR family transcriptional regulator		4.11688	MCON_2551
Na+/Pi-cotransporter		4.11174	MCON_2629
hypothetical protein		4.10963	MCON_2861
methyltransferase		4.1076	MCON_0925
hypothetical protein		4.10661	MCON_3336
hypothetical protein		4.10568	MCON_0145
two-component hybrid sensor and regulator		4.10343	MCON_0550
hypothetical protein		4.10178	MCON_0057
diaminobutyrate--2-oxoglutarate aminotransferase	ectB	4.10161	MCON_1199
TPR-repeat-containing protein		4.10064	MCON_3508
iron-dependent repressor		4.10049	MCON_0357
hypothetical protein		4.09642	MCON_0024
ATP-dependent RNA helicase		4.09102	MCON_2326
sulfite reductase subunit beta	asrB	4.08126	MCON_0684
hypothetical protein		4.07952	MCON_0373
hypothetical protein		4.07624	MCON_1010
membrane bound hydrogenase subunit	mbhA	4.07624	MCON_1599
FMN-binding protein		4.06863	MCON_2383
cation diffusion facilitator family transporter		4.06396	MCON_0158
amidohydrolase 2		4.05975	MCON_1546
glycosyl transferase, group 2 family protein		4.05804	MCON_0872
Ser/Thr protein phosphatase family protein		4.0543	MCON_1952
periplasmic binding protein		4.05205	MCON_2161
hypothetical protein		4.05179	MCON_2349
diphthine synthase	dphB	4.04886	MCON_1449
peptidyl-arginine deiminase/hydrolase fusion protein		4.04105	MCON_3455
hypothetical protein		4.03671	MCON_1145
NAD dependent epimerase/dehydratase		4.03671	MCON_1223
hypothetical protein		4.03442	MCON_1403
radical SAM domain-containing protein		4.02894	MCON_0125
ABC transporter ATP-binding protein		4.02099	MCON_3446

TPR repeat-containing protein			4.01622	MCON_1766
magnesium and cobalt transport protein CorA	corA		4.01095	MCON_2831
hypothetical protein			4.00913	MCON_3494
membrane protein			4.00863	MCON_2065
membrane bound hydrogenase subunit	mbhF		4.00542	MCON_1591
TPR repeat-containing protein			4.00271	MCON_0938
hypothetical protein			4.00271	MCON_3292
isochorismatase family protein			3.99824	MCON_1757
NADH dehydrogenase/NAD(P)H nitroreductase			3.99824	MCON_2940
deoxyhypusine synthase	dysA		3.99824	MCON_3059
amidohydrolase family protein			3.99494	MCON_2553
hypothetical protein			3.98564	MCON_1532
ArsR family transcriptional regulator			3.98564	MCON_2986
N-6 DNA methylase			3.98366	MCON_0717
phosphoserine phosphatase	serB		3.98313	MCON_0015
radical SAM domain-containing protein			3.98234	MCON_0668
hypothetical protein			3.98048	MCON_3447
hypothetical protein			3.97768	MCON_1367
hypothetical protein			3.97315	MCON_3407
alcohol dehydrogenase, zinc-containing			3.97053	MCON_0566
histone deacetylase family protein			3.96763	MCON_3222
DNA repair and recombination protein RadB	radB		3.96237	MCON_0075
hypothetical protein			3.96076	MCON_2787
TPR-repeat-containing protein			3.96045	MCON_3505
cation-transporting P-type ATPase			3.95484	MCON_2245
CARDB domain-containing protein			3.95393	MCON_1177
nucleotidyltransferase			3.95338	MCON_2764
hypothetical protein			3.95225	MCON_1627
hypothetical protein			3.95155	MCON_0332
hypothetical protein			3.9504	MCON_0003
hypothetical protein			3.945	MCON_3488
HTH DNA binding domain-containing protein			3.94405	MCON_2541
glyoxalase family protein			3.93631	MCON_0276
membrane protein			3.93631	MCON_2028
hypothetical protein			3.93631	MCON_2782
hypothetical protein			3.93538	MCON_0652
hypothetical protein			3.93389	MCON_0377
hypothetical protein			3.92922	MCON_1811
hypothetical protein			3.92905	MCON_2353
hypothetical protein			3.92609	MCON_1437
glucosamine--fructose-6-phosphate aminotransferase			3.92424	MCON_0166
hypothetical protein			3.92424	MCON_0193
exodeoxyribonuclease VII, small subunit	xseB		3.92424	MCON_1802
TPR-repeat-containing protein			3.92064	MCON_3055
hypothetical protein			3.91359	MCON_2857
LysM domain-containing protein			3.90418	MCON_0544

PIN domain-containing protein		3.90221	MCON_0774
hypothetical protein		3.89981	MCON_1197
hypothetical protein		3.89824	MCON_2317
di-trans,poly-cis-decaprenylcistransferase	uppS	3.89567	MCON_3310
hypothetical protein		3.89253	MCON_2611
hypothetical protein		3.89214	MCON_3236
extracellular ligand-binding receptor		3.89132	MCON_2728
hypothetical protein		3.88197	MCON_1499
ABC transporter substrate-binding protein		3.87783	MCON_0484
methyltransferase		3.87693	MCON_0688
hypothetical protein		3.87693	MCON_1388
hypothetical protein		3.86765	MCON_1821
4Fe-4S binding domain-containing protein		3.8637	MCON_0133
universal stress protein		3.8637	MCON_1429
CO dehydrogenase/acetyl-CoA synthase complex			
subunit beta	cdhC	3.8615	MCON_1942
flavin reductase domain-containing protein		3.8615	MCON_2547
hypothetical protein		3.8615	MCON_2984
isopentenyl-diphosphate delta-isomerase, type 2	fni	3.85975	MCON_2557
hypothetical protein		3.85385	MCON_3172
hypothetical protein		3.85385	MCON_3361
hypothetical protein		3.85385	MCON_3458
hypothetical protein		3.83808	MCON_0413
quinolinate synthetase complex subunit A	nadA	3.82952	MCON_2769
hypothetical protein		3.82663	MCON_1098
molybdate ABC transporter substrate-binding			
protein	modA	3.8247	MCON_1295
TPR-repeat-containing protein		3.8247	MCON_2402
hypothetical protein		3.8199	MCON_0050
hypothetical protein		3.81321	MCON_3228
hypothetical protein		3.80876	MCON_2206
hypothetical protein		3.80737	MCON_0567
hypothetical protein		3.80433	MCON_0426
hypothetical protein		3.80322	MCON_3322
hypothetical protein		3.79991	MCON_2859
hypothetical protein		3.79613	MCON_3436
hypothetical protein		3.79495	MCON_2646
hypothetical protein		3.78673	MCON_3451
hypothetical protein		3.78251	MCON_0712
hypothetical protein		3.77904	MCON_0033
nitrogenase MoFe cofactor biosynthesis protein	nifE	3.77761	MCON_0612
hypothetical protein		3.77043	MCON_0989
flavoprotein		3.7667	MCON_2323
tRNA pseudouridine synthase D	truD	3.75938	MCON_3174
methyltransferase		3.75788	MCON_1283
family 2 glycosyl transferase		3.75431	MCON_1460

alpha/beta fold family hydrolase		3.74736	MCON_0515
short chain dehydrogenase/reductase family protein		3.73981	MCON_0517
transposase, IS605 OrfB family		3.73981	MCON_0620
cobalamin biosynthesis protein CbiM	cbiM	3.72889	MCON_1804
3-phosphoshikimate 1-carboxyvinyltransferase	aroA	3.7277	MCON_0229
arsenate reductase ArsC	arsC	3.72679	MCON_3022
endonuclease/exonuclease/phosphatase family protein		3.72463	MCON_2253
hypothetical protein		3.7226	MCON_1351
hypothetical protein		3.7226	MCON_1669
hypothetical protein		3.71565	MCON_0221
response regulator receiver domain-containing protein		3.71219	MCON_0419
ABC transporter		3.70775	MCON_0686
MoaD family protein		3.70701	MCON_0248
ExsB protein		3.70619	MCON_0533
IS3/IS66 family element, Orf1 protein		3.70185	MCON_2477
hypothetical protein		3.69597	MCON_2959
histone deacetylase family protein		3.69476	MCON_1152
von Willebrand factor, type A		3.69223	MCON_0403
transposase		3.68922	MCON_1851
glycosyltransferase		3.68861	MCON_1218
hypothetical protein		3.68545	MCON_3175
transposase, IS605 OrfB family		3.67954	MCON_1412
hypothetical protein		3.6612	MCON_0944
hypothetical protein		3.6612	MCON_3432
CAAX amino terminal protease family protein		3.65599	MCON_2928
hypothetical protein		3.65264	MCON_1122
hypothetical protein		3.6498	MCON_1294
ABC transporter		3.6498	MCON_1461
glycosyl transferase, group 1 family protein		3.64962	MCON_2585
DsrE/DsrF family protein	dsrE	3.64923	MCON_3038
TPR-repeat-containing protein		3.6474	MCON_3529
transposase, Mutator family		3.64577	MCON_0002
hypothetical protein		3.64413	MCON_0853
hypothetical protein		3.64413	MCON_0861
hypothetical protein		3.63736	MCON_1661
hypothetical protein		3.63637	MCON_2133
hypothetical protein		3.62726	MCON_3326
RelE/StbE family addiction module toxin		3.62167	MCON_0964
hypothetical protein		3.6139	MCON_2404
ABC transporter		3.60506	MCON_3445
integral membrane protein		3.60231	MCON_2607
MerR family transcriptional regulator		3.5832	MCON_0371
nucleotidyl transferase		3.5812	MCON_1222
hypothetical protein		3.5812	MCON_1947
Met10+ like methyltransferase		3.57779	MCON_1892
hypothetical protein		3.57298	MCON_3016

glutamine cyclotransferase		3.57117	MCON_2478
TPR-repeat-containing protein		3.57006	MCON_3535
hypothetical protein		3.56809	MCON_0511
7,8-didemethyl-8-hydroxy-5-deazariboflavin synthase subunit CofG	cofG	3.5629	MCON_1058
iron chelate uptake ABC transporter permease		3.55767	MCON_0745
hypothetical protein		3.55633	MCON_2637
membrane bound hydrogenase subunit	mbhD	3.55585	MCON_1594
molybdate ABC transporter permease	modB	3.55056	MCON_0616
family 5 extracellular solute-binding protein		3.54573	MCON_0951
ammonium transporter	amt	3.54573	MCON_1566
hypothetical protein		3.54573	MCON_2421
TPR-repeat-containing protein		3.54273	MCON_3487
neutral zinc metallopeptidase family		3.54069	MCON_3123
hypothetical protein		3.5382	MCON_1119
cobalt ABC transporter permease	cbiQ	3.52831	MCON_2498
nitrogenase molybdenum-iron protein alpha chain	nifD2	3.51755	MCON_0610
methyltransferase		3.51643	MCON_3129
DJ-1/PfpI family protein		3.51436	MCON_0937
hypothetical protein		3.51372	MCON_2934
periplasmic binding protein		3.50339	MCON_0741
aromatic amino acid decarboxylase		3.49852	MCON_0966
hypothetical protein		3.49128	MCON_0350
hypothetical protein		3.49128	MCON_0520
lipoprotein		3.49128	MCON_1463
hypothetical protein		3.49128	MCON_1500
RDD domain-containing protein		3.49128	MCON_2815
transposase IS200-like protein		3.48367	MCON_0754
hypothetical protein		3.4824	MCON_3409
periplasmic binding protein		3.48063	MCON_0662
permease		3.47678	MCON_3021
glutamine amidotransferase class-I		3.47609	MCON_2597
short-chain dehydrogenase/reductase		3.47534	MCON_0374
hypothetical protein		3.47138	MCON_0563
radical SAM domain-containing protein		3.46542	MCON_0367
hypothetical protein		3.46189	MCON_3058
hypothetical protein		3.45957	MCON_2252
cache, type 2 domain-containing protein		3.45684	MCON_0358
hypothetical protein		3.45031	MCON_0043
major facilitator family transporter		3.44951	MCON_1030
permease		3.43485	MCON_2992
hypothetical protein		3.43238	MCON_0211
methyltransferase		3.43025	MCON_0961
ABC transporter ATP-binding protein		3.42854	MCON_3073
hypothetical protein		3.42304	MCON_0078
hypothetical protein		3.41328	MCON_2212

DsrE/DsrF family protein	dsrF	3.41328	MCON_3039
shikimate 5-dehydrogenase	aroE	3.41328	MCON_3308
diphthamide biosynthesis protein		3.41098	MCON_3424
dead/deah box helicase domain-containing protein		3.41075	MCON_1105
hypothetical protein		3.40966	MCON_0713
ADP-ribose pyrophosphatase	nudF	3.40822	MCON_0143
hypothetical protein		3.40822	MCON_1179
hypothetical protein		3.40182	MCON_0006
glycosyl transferase, group 2 family protein		3.39863	MCON_1812
ABC transporter permease		3.39743	MCON_2538
putative thiazole biosynthesis enzyme		3.39372	MCON_3229
iron transport protein		3.38436	MCON_0117
CobQ/CobB/MinD/ParA nucleotide binding domain-containing protein		3.38267	MCON_2155
restriction modification system DNA specificity domain-containing protein		3.38157	MCON_0079
hypothetical protein		3.36352	MCON_2276
ferredoxin		3.35864	MCON_3011
nitrilase/cyanide hydratase and apolipoprotein N-acyltransferase		3.34435	MCON_0666
hypothetical protein		3.33928	MCON_0067
hypothetical protein		3.33928	MCON_0243
hypothetical protein		3.33928	MCON_0859
hypothetical protein		3.33928	MCON_3218
hydroxylamine reductase	hcp	3.33266	MCON_2044
hypothetical protein		3.33056	MCON_1354
CopG family transcriptional regulator		3.32863	MCON_2485
TPR-repeat-containing protein		3.31852	MCON_2052
hypothetical protein		3.31205	MCON_2205
hypothetical protein		3.30572	MCON_0378
ABC transporter		3.30365	MCON_2215
Isoprenylcysteine carboxyl methyltransferase (ICMT) family protein		3.29863	MCON_1797
hypothetical protein		3.29863	MCON_3050
hypothetical protein		3.2978	MCON_0326
riboflavin biosynthesis protein RibD C- domain-containing protein		3.29508	MCON_0968
hypothetical protein		3.29197	MCON_1202
hypothetical protein		3.29197	MCON_2151
hypothetical protein		3.29197	MCON_2195
molybdate ABC transporter substrate-binding protein	modA	3.28681	MCON_0615
periplasmic binding protein		3.28353	MCON_0676
hypothetical protein		3.27654	MCON_3396
nucleoside recognition domain-containing protein		3.27347	MCON_2160
transposase, IS605 OrfB family		3.27271	MCON_2711

radical SAM domain-containing protein		3.26127	MCON_1560
carboxymuconolactone decarboxylase	pcaC	3.25748	MCON_2549
lipoprotein		3.25622	MCON_1257
type IIS restriction enzyme Eco57I (endonuclease Eco57I)		3.2541	MCON_0996
putative methanogenesis marker protein 8		3.25118	MCON_0796
NAD-dependent nucleotide sugar epimerase		3.25068	MCON_1819
hypothetical protein		3.24617	MCON_2487
hypothetical protein		3.24617	MCON_2545
hypothetical protein		3.22824	MCON_0841
hypothetical protein		3.22551	MCON_1466
glyoxalase family protein		3.2238	MCON_0261
ABC transporter		3.21989	MCON_2131
GNAT family acetyltransferase		3.21937	MCON_0508
hypothetical protein		3.20803	MCON_1355
hypothetical protein		3.20469	MCON_0402
DNA methylase		3.20407	MCON_1796
YihY family protein	yihY	3.19554	MCON_3235
hypothetical protein		3.19554	MCON_3414
hypothetical protein		3.18008	MCON_0048
excinuclease ABC subunit C	uvrC	3.17799	MCON_3368
lipopolysaccharide O-side chain biosynthesis protein		3.17637	MCON_2589
hypothetical protein		3.16721	MCON_2808
hypothetical protein		3.16644	MCON_2298
hypothetical protein		3.16644	MCON_3496
CutA1 divalent ion tolerance protein		3.1587	MCON_0250
glutamate synthase subunit alpha domain-containing protein		3.15341	MCON_0132
hypothetical protein		3.1493	MCON_2325
dolichyl-phosphate-mannose-protein mannosyltransferase		3.12115	MCON_1817
hypothetical protein		3.11101	MCON_0730
hypothetical protein		3.10866	MCON_0929
hypothetical protein		3.10568	MCON_2435
CBS domain-containing protein		3.08517	MCON_1454
lipoprotein		3.08198	MCON_0123
hypothetical protein		3.07624	MCON_0915
crispr-associated protein Cas4	cas4	3.07624	MCON_3376
molybdopterin-guanine dinucleotide biosynthesis			
protein B	mobB	3.06626	MCON_2724
methyltransferase		3.06427	MCON_3425
hypothetical protein		3.0637	MCON_3415
hypothetical protein		3.0603	MCON_0526
hypothetical protein		3.05634	MCON_0232
hypothetical protein		3.05634	MCON_1234
hypothetical protein		3.05352	MCON_1833
transposase, IS4		3.04649	MCON_1944
transposase, IS605 OrfB family		3.04229	MCON_1582
hypothetical protein		3.04229	MCON_1739

cobalt ABC transporter ATP-binding protein	cbiO	3.03931	MCON_2499
hypothetical protein		3.03671	MCON_0793
periplasmic binding protein		3.03239	MCON_0742
ABC transporter ATP-binding protein		3.02561	MCON_0671
anaerobic sulfatase-maturing protein		3.02489	MCON_2732
Radical SAM domain/B12 binding domain-containing protein		3.0191	MCON_2786
ribonuclease HI	rnhA	3.01735	MCON_1498
molybdopterin converting factor subunit 2	moaE	3.00913	MCON_0249
peptidyl-prolyl cis-trans isomerase C	ppiC	2.99824	MCON_1405
shikimate kinase	aroK	2.99319	MCON_2645
asparagine synthase	asnB	2.98878	MCON_1227
ABC transporter ATP-binding protein		2.9866	MCON_2130
family 2 glycosyl transferase		2.9773	MCON_2588
hypothetical protein		2.97315	MCON_2763
hypothetical protein		2.97004	MCON_2243
ABC transporter ATP-binding protein		2.96196	MCON_2124
hypothetical protein		2.96076	MCON_3406
redox-active disulfide protein 2		2.94239	MCON_3196
hypothetical protein		2.93147	MCON_2076
hypothetical protein		2.92424	MCON_0455
hypothetical protein		2.90039	MCON_0842
hypothetical protein		2.89676	MCON_3242
peptide ABC transporter ATP-binding protein		2.89658	MCON_3433
hypothetical protein		2.89645	MCON_1413
ABC transporter ATP-binding protein		2.88861	MCON_0673
hypothetical protein		2.87113	MCON_3461
oligopeptide ABC transporter ATP-binding protein	oppD	2.86765	MCON_2194
putative ATP binding protein		2.86639	MCON_2598
family 5 extracellular solute-binding protein		2.8615	MCON_0956
iron chelate uptake ABC transporter permease		2.85767	MCON_0480
hypothetical protein		2.85767	MCON_3054
toprim domain-containing protein		2.85385	MCON_1366
hypothetical protein		2.85385	MCON_1985
hypothetical protein		2.84895	MCON_2113
lipoprotein		2.84017	MCON_0407
membrane protein		2.83777	MCON_2552
hypothetical protein		2.83113	MCON_1864
membrane protein		2.8255	MCON_1664
TPR-repeat-containing protein		2.8199	MCON_0414
ABC transporter permease		2.8199	MCON_2537
nitrogenase MoFe cofactor biosynthesis domain-containing protein		2.81218	MCON_0060
hypothetical protein		2.80322	MCON_0589
PadR family transcriptional regulator		2.80322	MCON_0954
hypothetical protein		2.80322	MCON_0969
methyltransferase		2.79991	MCON_1323

HxIR family transcriptional regulator		2.79771	MCON_2546
membrane bound hydrogenase subunit	mbhB	2.79495	MCON_1598
hypothetical protein		2.79495	MCON_3328
carbamate kinase	arcC	2.78673	MCON_2233
radical SAM domain-containing protein		2.77802	MCON_0465
hypothetical protein		2.75431	MCON_0990
iron chelate uptake ABC transporter permease		2.75031	MCON_0950
periplasmic binding protein		2.74473	MCON_2120
ArsR family transcriptional regulator		2.74367	MCON_3020
hypothetical protein		2.73837	MCON_3029
transposase, Mutator family		2.73441	MCON_0601
hypothetical protein		2.72609	MCON_0175
integral membrane protein		2.7082	MCON_0493
hypothetical protein		2.70701	MCON_2334
family 5 extracellular solute-binding protein		2.7056	MCON_3438
hypothetical protein		2.69012	MCON_2437
membrane protein		2.68817	MCON_1229
imidazoleglycerol-phosphate dehydratase	hisB	2.68392	MCON_0300
helicase domain-containing protein		2.68274	MCON_2674
hypothetical protein		2.68138	MCON_0709
citrate transporter		2.68057	MCON_0110
AsnC family transcriptional regulator		2.67631	MCON_0320
hypothetical protein		2.67328	MCON_1031
periplasmic binding protein		2.66924	MCON_2162
hypothetical protein		2.6612	MCON_0011
hypothetical protein		2.6612	MCON_1863
hypothetical protein		2.65745	MCON_0315
periplasmic binding protein		2.65692	MCON_0663
hypothetical protein		2.65122	MCON_1090
hypothetical protein		2.63146	MCON_0216
hypothetical protein		2.62411	MCON_0952
capsular polysaccharide biosynthesis protein		2.62167	MCON_1224
internalin-A		2.61998	MCON_0538
hypothetical protein		2.60231	MCON_0247
nitrogen regulatory protein P-II	glnBB	2.60231	MCON_0609
hypothetical protein		2.60231	MCON_0721
hypothetical protein		2.59956	MCON_2964
2-dehydropantoate 2-reductase	panE	2.58905	MCON_0492
ammonium transporter N-terminal protein		2.57779	MCON_0621
glycosyl transferase, group 1 family protein		2.57541	MCON_1850
ribonuclease Z	rnz	2.57374	MCON_3217
hypothetical protein		2.56809	MCON_1690
major facilitator family transporter		2.56568	MCON_2381
hypothetical protein		2.56434	MCON_2983
IS66 family element, transposase		2.56214	MCON_0995
hypothetical protein		2.55967	MCON_0868

periplasmic binding protein		2.55767	MCON_0945
glycosyl transferase group 2/group 1 fusion protein		2.54573	MCON_1860
redox-active disulfide protein 2		2.52735	MCON_2995
hypothetical protein		2.51825	MCON_2496
integral membrane protein		2.51825	MCON_2568
hypothetical protein		2.51281	MCON_0246
hypothetical protein		2.5092	MCON_3334
membrane protein		2.50541	MCON_1219
hypothetical protein		2.5047	MCON_0913
hypothetical protein		2.49128	MCON_2057
hypothetical protein		2.47919	MCON_0714
nitroreductase/iron-sulfur domain-containing protein		2.47534	MCON_2548
YcfA-like protein		2.47358	MCON_2863
FAD-dependent pyridine nucleotide-disulfide oxidoreductase		2.46018	MCON_0597
hypothetical protein		2.44742	MCON_2814
hypothetical protein		2.43881	MCON_2774
methyltransferase/glycosyl transferase fusion protein		2.4353	MCON_1814
glycosyl transferase, group 2 family protein		2.42483	MCON_1818
oligopeptide ABC transporter permease		2.40182	MCON_2144
hypothetical protein		2.38818	MCON_1587
periplasmic binding protein		2.37675	MCON_0477
ABC transporter ATP-binding protein		2.35135	MCON_0617
hypothetical protein		2.33928	MCON_1078
transposase, IS605 OrfB family		2.33558	MCON_0495
magnesium-chelatase subunit ChlD	chlD	2.33491	MCON_2217
imidazoleglycerol phosphate synthase, cyclase subunit	hisF	2.33394	MCON_3300
hypothetical protein		2.3256	MCON_2357
methyltransferase		2.31881	MCON_0513
hypothetical protein		2.31071	MCON_2207
ABC transporter		2.30953	MCON_0674
hypothetical protein		2.30365	MCON_2407
hypothetical protein		2.29975	MCON_3287
hypothetical protein		2.29663	MCON_2503
hypothetical protein		2.29197	MCON_3010
hypothetical protein		2.2865	MCON_0184
hypothetical protein		2.28616	MCON_2493
TPR-repeat-containing protein		2.26889	MCON_2532
hypothetical protein		2.24617	MCON_0181
hypothetical protein		2.24617	MCON_2434
Lrp/AsnC family transcriptional regulator		2.24617	MCON_2835
membrane bound hydrogenase subunit	mbhG	2.24366	MCON_1586
hypothetical protein		2.23867	MCON_2938
death-on-curing family protein		2.2238	MCON_2060
ABC transporter		2.21274	MCON_2251
glycosyl transferase, group 1 family protein		2.20615	MCON_2587

hypothetical protein		2.1978	MCON_0471
YcfA-like protein		2.18008	MCON_0854
hypothetical protein		2.17292	MCON_0534
hypothetical protein		2.16935	MCON_3008
transposase		2.15165	MCON_2164
lipoprotein		2.14463	MCON_2000
hypothetical protein		2.14463	MCON_2761
magnesium-chelatase subunit ChID	chID	2.14393	MCON_0672
hypothetical protein		2.13764	MCON_2540
hypothetical protein		2.13282	MCON_0794
hypothetical protein		2.10321	MCON_2766
TPR-repeat-containing protein		2.10151	MCON_3507
L-2,4-diaminobutyric acid acetyltransferase	ectA	2.10049	MCON_1200
DNA polymerase B	dpo2	2.09749	MCON_0418
carbon monoxide dehydrogenase accessory protein	cooC	2.08774	MCON_0483
hypothetical protein		2.07624	MCON_1067
rhodanese domain-containing protein		2.0603	MCON_2997
hypothetical protein		2.05634	MCON_3264
TPR-repeat-containing protein		2.05305	MCON_3491
transposase, IS4		2.0479	MCON_2581
hypothetical protein		2.04649	MCON_0038
hypothetical protein		2.03671	MCON_1130
hypothetical protein		2.03671	MCON_2710
IS3/IS66 family element, Orf1 protein		2.03671	MCON_3527
hypothetical protein		2.03023	MCON_0142
periplasmic binding protein		2.02377	MCON_2122
hypothetical protein		2.01095	MCON_2342
hypothetical protein		1.99824	MCON_2862
hypothetical protein		1.99192	MCON_3506
hypothetical protein		1.98206	MCON_2188
hypothetical protein		1.97938	MCON_2263
indolepyruvate ferredoxin oxidoreductase subunit beta	iorB	1.95338	MCON_1346
ABC transporter ATP-binding protein		1.95023	MCON_1462
periplasmic binding protein		1.94604	MCON_0947
hypothetical protein		1.93631	MCON_2225
hypothetical protein		1.93228	MCON_0449
methyltransferase		1.91397	MCON_0478
hypothetical protein		1.90988	MCON_3278
hypothetical protein		1.90632	MCON_2768
shikimate kinase	aroK	1.88861	MCON_0363
lipoprotein		1.88861	MCON_2377
hypothetical protein		1.88542	MCON_0202
hypothetical protein		1.86534	MCON_0955
crispr-associated protein Cas1	cas1	1.86534	MCON_3271

cysteine ABC transporter permease/ATP-binding protein		1.8637	MCON_2125
DNA polymerase I		1.85614	MCON_2271
anthranilate phosphoribosyltransferase	trpD	1.84624	MCON_0565
periplasmic binding protein		1.83677	MCON_0650
GNAT family acetyltransferase		1.82831	MCON_0507
TPR repeat-containing protein		1.81571	MCON_1738
hypothetical protein		1.81154	MCON_1176
hypothetical protein		1.80322	MCON_0744
FeoA family protein		1.78673	MCON_0353
TPR-repeat-containing protein		1.78673	MCON_3490
iron chelate uptake ABC transporter permease		1.77856	MCON_0670
hypothetical protein		1.77856	MCON_0795
glutamine synthetase, type I	glnA	1.77043	MCON_0129
hypothetical protein		1.77043	MCON_0999
type I site-specific deoxyribonuclease, HsdR family		1.75565	MCON_0084
CAAX amino terminal protease family protein		1.75431	MCON_0265
hypothetical protein		1.75431	MCON_1427
hypothetical protein		1.73837	MCON_2123
hypothetical protein		1.73837	MCON_3144
NAD-dependent epimerase/dehydratase		1.73611	MCON_3230
cytochrome c biogenesis transmembrane protein		1.73441	MCON_2994
GNAT family acetyltransferase		1.7226	MCON_0506
hypothetical protein		1.7226	MCON_2053
daunorubicin resistance ATP-binding protein family		1.69597	MCON_0489
hypothetical protein		1.69158	MCON_0324
hypothetical protein		1.67631	MCON_3526
helicase domain-containing protein		1.66371	MCON_2433
hypothetical protein		1.62558	MCON_0733
hypothetical protein		1.61889	MCON_2382
hypothetical protein		1.61196	MCON_0264
PBS lyase HEAT domain-containing protein repeat-containing protein		1.61058	MCON_0682
transposase, IS605 OrfB family		1.59819	MCON_2047
transposase IS200-like protein		1.59272	MCON_0606
hypothetical protein		1.58795	MCON_0046
adenosylcobinamide amidohydrolase	cbiZ	1.57728	MCON_0665
hypothetical protein		1.57374	MCON_1015
hypothetical protein		1.57374	MCON_1981
hypothetical protein		1.55967	MCON_0720
hypothetical protein		1.54573	MCON_0497
transposase, IS605 OrfB family		1.53782	MCON_0383
crispr-associated protein, Csa1 family	csa1	1.53651	MCON_3375
type I restriction-modification enzyme, S subunit		1.53536	MCON_0716
hypothetical protein		1.53388	MCON_1422
transposase, IS605 OrfB family domain-containing protein		1.53192	MCON_1897
hypothetical protein		1.52735	MCON_2165

nitrogen regulatory protein P-II	glnBA	1.51825	MCON_0608
metallo-beta-lactamase domain-containing protein		1.49797	MCON_2670
hypothetical protein		1.46481	MCON_2426
membrane protein		1.44527	MCON_2128
lipoprotein		1.44397	MCON_3006
hypothetical protein		1.43881	MCON_1536
nitrogen regulatory protein P-II		1.43881	MCON_1565
nitrogen regulatory protein P-II		1.42599	MCON_0624
iron compounds ABC transporter permease		1.42174	MCON_0366
cobaltochelatase, CobN subunit	cobN1	1.41558	MCON_0660
hypothetical protein		1.40486	MCON_2266
hypothetical protein		1.38818	MCON_2539
cobaltochelatase, CobN subunit	cobN2	1.38029	MCON_0667
hypothetical protein		1.34731	MCON_2436
death-on-curing family protein		1.33928	MCON_1535
hypothetical protein		1.33928	MCON_1755
hypothetical protein		1.3273	MCON_0185
hypothetical protein		1.31543	MCON_1304
lipoprotein		1.31543	MCON_2397
oligopeptide ABC transporter solute-binding protein		1.22936	MCON_2143
iron compound ABC transporter ATP-binding protein		1.22238	MCON_0365
ABC transporter ATP-binding protein		1.20725	MCON_0481
methyltransferase	chaM	1.20725	MCON_1822
hypothetical protein		1.1945	MCON_1589
cation ABC-3 transporter family protein		1.1747	MCON_3448
pyridoxamine 5'-phosphate oxidase-related, FMN-binding protein		1.16935	MCON_1939
hypothetical protein		1.16935	MCON_2265
glycosyl transferase, group 1 family protein		1.16721	MCON_1849
transposase		1.14463	MCON_3519
hypothetical protein		1.13347	MCON_3239
hypothetical protein		1.11688	MCON_0351
hypothetical protein		1.11688	MCON_0979
transposase, IS4 family		1.10151	MCON_2269
oligopeptide ABC transporter permease		1.09135	MCON_2146
periplasmic binding protein		1.0603	MCON_0743
transposase		1.05964	MCON_1182
transposase, IS605 OrfB family		1.05239	MCON_0994
hypothetical protein		1.03671	MCON_0333
rhodanese domain-containing protein		1.03671	MCON_2998
transposase, IS605 OrfB Family		1.01735	MCON_1022
hypothetical protein		1.01735	MCON_1993
glycosyl transferase family protein		0.97004	MCON_1225
hypothetical protein		0.96076	MCON_0494
nucleoside recognition domain-containing protein		0.95615	MCON_2666
methyltransferase		0.95461	MCON_2049

hypothetical protein		0.95155	MCON_0219
lipoprotein-releasing system ABC transporter ATP-binding protein	lolD	0.94849	MCON_2536
hypothetical protein		0.92424	MCON_0509
periplasmic binding protein		0.91078	MCON_0661
Bcr/CflA subfamily drug resistance transporter		0.89567	MCON_3081
hypothetical protein		0.87984	MCON_0867
hypothetical protein		0.80322	MCON_0479
hypothetical protein		0.80322	MCON_1540
hypothetical protein		0.78673	MCON_0362
imidazoleglycerol-phosphate dehydratase		0.78673	MCON_0505
hypothetical protein		0.78673	MCON_2929
hypothetical protein		0.77856	MCON_3541
periplasmic binding protein		0.77043	MCON_0962
hypothetical protein		0.76437	MCON_2413
hypothetical protein		0.75431	MCON_1438
hypothetical protein		0.75164	MCON_3240
Nitrogenase iron protein 2	nifH2	0.74367	MCON_0607
hypothetical protein		0.69158	MCON_3107
Ser/Thr protein phosphatase family protein		0.66497	MCON_3241
multi-domain sirohydrochlorin cobaltochelatase		0.6562	MCON_0361
hypothetical protein		0.63146	MCON_0646
plasmid pRiA4b ORF-3-like protein		0.61681	MCON_0349
RelE/StbE family addiction module toxin		0.61681	MCON_1001
hypothetical protein		0.60231	MCON_3041
peptidase M28		0.59871	MCON_0516
methyltransferase		0.59511	MCON_0959
hypothetical protein		0.58795	MCON_0321
hypothetical protein		0.58795	MCON_1856
hypothetical protein		0.57374	MCON_1841
hypothetical protein		0.57374	MCON_2410
hypothetical protein		0.57374	MCON_2608
cobalt chelatase	cbiK	0.555	MCON_0747
glycosyl transferase, group 1 family protein		0.55268	MCON_2813
hypothetical protein		0.52507	MCON_0028
hypothetical protein		0.51825	MCON_1750
methyltransferase		0.5047	MCON_1820
glycosyl transferase, group 1 family protein		0.49574	MCON_2586
periplasmic binding protein		0.45175	MCON_3360
hypothetical protein		0.41328	MCON_1979
glutamine amidotransferase class-I		0.3758	MCON_1233
hypothetical protein		0.36965	MCON_2132
HxIR family transcriptional regulator		0.33928	MCON_2045
transposase, IS605 OrfB family		0.31543	MCON_2257
hypothetical protein		0.31543	MCON_2406
methyltransferase		0.30659	MCON_1844

4Fe-4S ferredoxin, iron-sulfur binding protein		0.2978	MCON_1785
methyltransferase		0.2978	MCON_2140
carbon monoxide dehydrogenase accessory protein	cooC	0.28038	MCON_2384
phosphatidylethanolamine N-methyltransferase transposase		0.24054	MCON_2138
transposase, IS116/IS110/IS902 family		0.14463	MCON_2176
hypothetical protein		0.13069	MCON_3003
transposase, IS116/IS110/IS902 family		0.12722	MCON_1893
ABC transporter ATP-binding protein		0.06129	MCON_2387
cytosine deaminase	fcy1	-0.02996	MCON_0322
periplasmic binding protein		-0.03924	MCON_2119
hypothetical protein		-0.09813	MCON_1823
hypothetical protein		-0.16323	MCON_0178
transposase, IS116/IS110/IS902 family		-0.16323	MCON_0984
hypothetical protein		-0.17169	MCON_0258
hypothetical protein		-0.18846	MCON_1772
hypothetical protein		-0.28522	MCON_2401
hypothetical protein		-0.29299	MCON_2197
hypothetical protein		-0.32369	MCON_3520
transposase, IS605 OrfB family		-0.35002	MCON_0924
hypothetical protein		-0.36116	MCON_2239
CRISPR-associated helicase Cas3	cas3	-0.39949	MCON_3379
transposase, IS4 family protein/SWIM domain fusion		-0.40847	MCON_3216
transposase, IS605 OrfB family		-0.43331	MCON_3192
hypothetical protein		-0.46119	MCON_2170
hypothetical protein		-0.47265	MCON_0176
membrane protein		-0.68161	MCON_3202
methyltransferase		-0.69341	MCON_1848
radical SAM domain-containing protein		-0.7022	MCON_2812
hypothetical protein		-0.72538	MCON_0644
transposase, IS605 OrfB family		-0.73683	MCON_3329
hypothetical protein		-0.76226	MCON_0187
hypothetical protein		-0.77064	MCON_0736
2,3-dihydro-2,3-dihydroxybenzoate dehydrogenase		-0.78174	MCON_3004
hypothetical protein		-0.79823	MCON_3387
hypothetical protein		-0.81813	MCON_2412
hypothetical protein		-0.85187	MCON_1308
crispr-associated protein, Csh2 family	csh2	-1.01593	MCON_3267
cation-transporting P-type ATPase		-1.09146	MCON_0487
hypothetical protein		-1.40847	MCON_2809
transposase		-1.41561	MCON_2860
hypothetical protein		-1.42095	MCON_2411
peptidase families S8 and S53		-1.48402	MCON_3546
crispr-associated protein	csh1	-2.04845	MCON_3268
hypothetical protein		-2.12125	MCON_3027

hypothetical protein -3.10919 MCON_3484

Table S2b. List of genes belonging to *Geobacter metalirreducens* and their expression levels.
Transcript reads that have \geq median log₂ RPKM values (4.2) were taken as the threshold for the significant expression level.

<u>/product</u>	<u>/gene</u>	<u>RPKM values (log2)</u>	<u>/locus_tag</u>	<u>Median</u>
lipoprotein, putative		11.52393	Gmet_2687	4.2
cold shock DNA/RNA-binding protein		11.31322	Gmet_0340	
ferredoxin	frx-2	11.28672	Gmet_1033	
hypothetical protein		11.00435	Gmet_2625	
efflux pump, RND family, outer membrane lipoprotein		10.78131	Gmet_0811	
hydrogen-dependent growth transcriptional repressor	hgtR	10.76973	Gmet_0056	
histone-like protein	hup-2	10.73239	Gmet_1608	
lipoprotein, putative		10.13449	Gmet_1172	
ATP synthase F0, C subunit	atpE	10.12987	Gmet_3360	
ribosomal protein L28	rpmB	10.08222	Gmet_2323	
acyl carrier protein	acpP-2	10.03758	Gmet_1602	
transcriptional regulator, MerR family		9.99235	Gmet_1418	
rare lipoprotein A-like double-psi beta-barrel domain protein		9.84854	Gmet_3379	
cold shock DNA/RNA-binding protein		9.74613	Gmet_1266	
lipoprotein cytochrome c		9.73913	Gmet_0913	
ethanol dehydrogenase, putative		9.66236	Gmet_1046	
ribosomal protein L31	rpmE	9.65175	Gmet_0377	
ribosomal protein S14	rpsN	9.6407	Gmet_0639	
outer membrane channel OmpJ	ompJ	9.57903	Gmet_3254	
hypothetical protein		9.56809	Gmet_3638	
ribosomal protein S9	rpsL	9.55704	Gmet_0607	
ribosomal protein L33	rpmG	9.5092	Gmet_0612	
ribosomal protein L21	rplU	9.44231	Gmet_3195	
flagellin	fliC	9.31631	Gmet_0442	
hypothetical protein		9.2498	Gmet_0989	
histone-like protein	hup-1	9.2309	Gmet_0355	
uncharacterized protein YqeY	yqeY	9.09089	Gmet_0392	
hypothetical protein		9.02289	Gmet_1925	
flagellar biogenesis master sigma-54-dependent transcriptional response regulator	fgrM	9.02261	Gmet_3263	
response regulator		8.92486	Gmet_1220	
hypothetical protein		8.88923	Gmet_3502	
ribosomal protein S15	rpsO	8.84725	Gmet_1590	
NADH dehydrogenase I, D subunit	nuoD	8.83236	Gmet_3352	

cell division protein ZapB	zapB	8.79815	Gmet_1177
cytochrome c		8.76011	Gmet_0912
ribosomal protein L34	rpmH	8.68977	Gmet_3564
cytochrome c		8.65295	Gmet_2896
glucose-6-phosphate 1-dehydrogenase	zwf	8.6453	Gmet_2619
citrate synthase	gltA	8.58755	Gmet_2689
NADH dehydrogenase I, I subunit	nuoL-1	8.56372	Gmet_3347
ribosomal protein S19	rpsS	8.55576	Gmet_0630
ribosomal protein L36	rpmJ	8.5374	Gmet_0649
ribosomal protein S20	rpsT	8.52144	Gmet_2297
NADH dehydrogenase I, J subunit	nuoJ-1	8.51563	Gmet_3346
nitrogen regulatory protein P-II	glnB	8.51345	Gmet_1351
ribosomal protein S5	rpsE	8.50477	Gmet_0643
ribosomal protein L2	rplB	8.50043	Gmet_0629
ribosomal protein L13	rplM	8.49831	Gmet_0606
nucleoside diphosphate kinase	ndk	8.45505	Gmet_2686
ribosomal protein L18	rplR	8.42395	Gmet_0642
hypothetical protein		8.42249	Gmet_1680
carbonic anhydrase, beta-family, clade C		8.40371	Gmet_1242
ribosomal protein L27	rpmA	8.39733	Gmet_3196
ribosomal protein L16	rplP	8.37808	Gmet_0633
cytochrome c	ppcB	8.36042	Gmet_3166
lipoprotein, putative		8.34805	Gmet_3526
transcriptional regulator, Ros/MucR family		8.33007	Gmet_1305
cytochrome c		8.32206	Gmet_3587
NADH dehydrogenase I, B subunit	nuoB	8.30809	Gmet_3354
hypothetical protein		8.30734	Gmet_0911
geopilin domain 1 protein	pilA-N	8.30671	Gmet_1399
integration host factor, alpha subunit	ihfA-1	8.29246	Gmet_1417
cysteine synthase A	cysK-1	8.28999	Gmet_2988
peptidoglycan-binding outer membrane protein, OMP_b- brl and OmpA domain-containing		8.28587	Gmet_0342
hypothetical protein		8.28269	Gmet_2913
hypothetical protein		8.22627	Gmet_2462
hypothetical protein		8.21985	Gmet_3637
cold shock DNA/RNA-binding protein		8.20244	Gmet_0237
hypothetical protein		8.19917	Gmet_2461
ribosomal protein L17	rplQ	8.17598	Gmet_0654
aldehyde:ferredoxin oxidoreductase, tungsten-containing	aorA	8.17045	Gmet_1045
ribosomal protein L7/L12	rplL	8.15906	Gmet_0618
ribosomal protein S12	rpsL	8.14995	Gmet_0621
thioredoxin-related protein disulfide reductase, putative		8.1412	Gmet_3229
ribosomal protein S21	rpsU	8.13251	Gmet_0391
cell division protein ZapA	zapA	8.13007	Gmet_1178
transcriptional regulator, TetR family		8.12881	Gmet_0808

efflux pump, RND family, membrane fusion				
lipoprotein	acrA	8.10264	Gmet_0809	
cytochrome c	ppcA	8.09592	Gmet_2902	
NADH dehydrogenase I, G subunit	nuoG-1	8.07352	Gmet_3349	
ATP synthase-associated magnesium import				
membrane protein AtpZ	atpZ	8.06619	Gmet_3357	
hypothetical protein		8.06174	Gmet_1729	
ribosomal protein L4	rplD	8.06143	Gmet_0627	
hypothetical protein		8.05352	Gmet_2387	
hypothetical protein		8.05077	Gmet_2548	
ribosomal protein L20	rplT	8.03595	Gmet_1414	
glutamate dehydrogenase, NADP-dependent	gdhA	8.03466	Gmet_1186	
NADH dehydrogenase I, C subunit	nuoC	7.99019	Gmet_3353	
NADH dehydrogenase I, K subunit	nuoK-1	7.98027	Gmet_3345	
NADH dehydrogenase I, F subunit	nuoF-1	7.9704	Gmet_3350	
NADH dehydrogenase I, A subunit	nuoA-1	7.9212	Gmet_3355	
NADH dehydrogenase I, H subunit	nuoH-1	7.90541	Gmet_3348	
ribosomal protein L24	rplX	7.89583	Gmet_0637	
geopilin domain 2 protein	pilA-C	7.88088	Gmet_1400	
TPR domain protein		7.87592	Gmet_2945	
response regulator		7.87002	Gmet_3117	
preprotein translocase, SecG subunit	secG	7.85998	Gmet_1949	
ribosomal protein L23	rplW	7.85622	Gmet_0628	
ribosomal protein S10	rpsJ	7.85429	Gmet_0625	
protein of unknown function DUF3373		7.84622	Gmet_3090	
hypothetical protein		7.83113	Gmet_3584	
cytochrome c	omcZ	7.82128	Gmet_0930	
DNA-directed RNA polymerase, omega subunit	rpoZ	7.81732	Gmet_2326	
ribosomal protein S17	rpsQ	7.75064	Gmet_0635	
succinate dehydrogenase/fumarate reductase, cytochrome b558 subunit	frdC	7.74367	Gmet_2397	
ribosomal protein L14	rplN	7.72992	Gmet_0636	
cytochrome c	ppcE	7.72706	Gmet_1846	
LysM domain protein		7.72665	Gmet_0889	
ribosomal protein L6	rplF	7.7201	Gmet_0641	
hypothetical protein		7.71968	Gmet_3188	
glutamine synthetase, type I	glnA	7.71088	Gmet_1352	
ribosomal protein L32	rpmF	7.69047	Gmet_1597	
ribosomal protein L10	rplJ	7.6837	Gmet_0617	
zinc finger transcriptional regulator, TraR/DksA family		7.67328	Gmet_3278	
response regulator, putative		7.6731	Gmet_3218	
succinyl:acetate coenzyme A transferase	ato-2	7.65774	Gmet_1730	
hypothetical protein		7.64577	Gmet_3255	
NADH dehydrogenase I, E subunit	nuoE-1	7.63611	Gmet_3351	

ribosomal protein L30	rpmD	7.62468	Gmet_0644
NADH dehydrogenase I, N subunit	nuoN-1	7.60973	Gmet_3342
hypothetical protein		7.60676	Gmet_0506
NHL repeat domain protein		7.5872	Gmet_0556
cytochrome c	omcX	7.58589	Gmet_2839
succinate dehydrogenase/fumarate			
reductase, iron-sulfur protein	frdB	7.57722	Gmet_2395
DNA-directed RNA polymerase, alpha			
subunit	rpoA	7.574	Gmet_0653
16S rRNA processing protein RimM	rimM	7.57141	Gmet_2869
response receiver		7.57029	Gmet_2914
zinc protease TldD, putative modulator of			
DNA gyrase	tldD	7.52166	Gmet_2720
winged helix-turn-helix transcriptional regulator, Rrf2			
family		7.51625	Gmet_1931
translation elongation factor G	fusA-3	7.51336	Gmet_0623
dihydroxy-acid dehydratase	ilvD	7.50746	Gmet_1259
helix-turn-helix transcriptional regulator, IclR family		7.49438	Gmet_3027
menaquinol oxidoreductase complex Cbc5,			
cytochrome c subunit	cbaC	7.49128	Gmet_2928
ferric uptake regulation protein Fur	fur	7.48563	Gmet_2445
efflux pump, RND family, inner membrane			
protein	acrB	7.46778	Gmet_0810
oxidoreductase, 2-nitropropane dioxygenase family		7.46742	Gmet_1293
RNA-binding protein Hfq	hfq	7.46029	Gmet_2051
enolase	eno	7.45797	Gmet_2372
sphingosine/diacylglycerol kinase-related protein		7.45361	Gmet_2741
hypothetical protein		7.45262	Gmet_3501
ribosomal protein S3	rpsC	7.43711	Gmet_0632
helix-turn-helix transcriptional regulator, ArsR family		7.43685	Gmet_0846
lytic transglycosylase domain protein		7.43172	Gmet_1953
ribosomal protein S8	rpsH	7.42929	Gmet_0640
ribosomal protein L29	rpmC	7.41863	Gmet_0634
protein of unknown function YrdA,			
isoleucine patch superfamily of carbonic			
anhydrases/acetyltransferases	yrdA	7.41429	Gmet_3545
ribosomal protein L35	rplI	7.41123	Gmet_1413
ribosomal protein L1	rplA	7.40307	Gmet_0616
ATP synthase-associated magnesium import			
membrane protein Atpl	atpl	7.39591	Gmet_3358
hypothetical protein		7.37741	Gmet_3586
hypothetical protein		7.3717	Gmet_3597
molybdopterin biosynthesis sulfur carrier			
protein sulfurylase	moeB	7.3644	Gmet_1043
nitrogen fixation transcript antitermination			
sensor histidine kinase	gnfK	7.36298	Gmet_0696
helix-turn-helix iron-sulfur cluster-binding	iscR-1	7.34508	Gmet_2989

transcriptional regulator IscR				
ribosomal protein S7	rpsG	7.34386	Gmet_0622	
menaquinone biosynthesis methyltransferase, putative		7.33232	Gmet_1167	
hypothetical protein		7.32417	Gmet_2915	
ATP synthase F1, alpha subunit	atpA	7.27731	Gmet_3408	
malate dehydrogenase, NAD-dependent	mdh	7.25521	Gmet_1360	
acetolactate synthase, small subunit	ilvN	7.25494	Gmet_1261	
ribosomal protein S13	rpsM	7.24617	Gmet_0650	
ribosomal protein S11	rpsK	7.24617	Gmet_0651	
2-oxoglutarate:ferredoxin oxidoreductase, ferredoxin subunit	korD	7.24617	Gmet_1361	
hypothetical protein		7.23323	Gmet_0835	
NADH dehydrogenase I, M subunit	nuoM-1	7.2238	Gmet_3343	
protein of unknown function, LysM, LysM and NLPC_P60 domain-containing hypothetical protein		7.21633	Gmet_1169	
ATP synthase F0, B subunit	atpF	7.19654	Gmet_3410	
DNA repair exonuclease SbcCD, D subunit, putative	sbcD	7.1836	Gmet_1223	
response receiver		7.17853	Gmet_2926	
guanylate kinase	gmk	7.17365	Gmet_2327	
ribosomal protein L5	rplE	7.17217	Gmet_0638	
hypothetical protein		7.17217	Gmet_3172	
cystathionine gamma-synthase/beta-lyase	metC-1	7.15893	Gmet_0698	
hypothetical protein		7.15405	Gmet_0129	
ribosomal protein S4	rpsD	7.15352	Gmet_0652	
thioredoxin	trxA	7.15131	Gmet_3230	
2-oxoglutarate:ferredoxin oxidoreductase, thiamin diphosphate-binding subunit	korB	7.14776	Gmet_1363	
hypothetical protein		7.14663	Gmet_1920	
flagellar export protein FliJ	fliJ	7.13552	Gmet_3108	
NADH dehydrogenase I, L subunit	nuoL-1	7.12728	Gmet_3344	
transcriptional repressor, HgtR-related protein		7.12587	Gmet_1047	
ribosomal protein S18	rpsR	7.11941	Gmet_2843	
translation elongation factor P	efp-2	7.11784	Gmet_1838	
peptidylprolyl cis-trans isomerase lipoprotein, PpiC-type		7.10729	Gmet_3548	
hypothetical protein		7.10321	Gmet_1565	
ATP synthase F0, A subunit	atpB	7.09416	Gmet_3359	
peptide methionine sulfoxide reductase, S-isomer-specific	msrA	7.08726	Gmet_0268	
isocitrate dehydrogenase, NADP-dependent	icd	7.06819	Gmet_1359	
ATP synthase F1, delta subunit	atpH	7.0592	Gmet_3409	
integration host factor, beta subunit	ihfB-1	7.04913	Gmet_1833	
lipoprotein, putative		7.04739	Gmet_3486	
type IV pilus minor pilin PilX	pilX-2	7.04163	Gmet_0966	
translation initiation factor IF-3	infC	7.04036	Gmet_1412	

ribosomal protein S2	rpsB	7.02377	Gmet_1250
NUDIX hydrolase		7.01899	Gmet_0988
threonyl-tRNA synthetase	thrS	7.00353	Gmet_1411
protein of unknown function DUF177		6.99272	Gmet_1596
cytochrome c		6.99241	Gmet_2048
3-oxoacyl-(acyl carrier protein) synthase II	fabF-2	6.98944	Gmet_1603
NADPH-dependent glutamate synthase, iron-sulfur cluster-binding and FMN-binding subunit		6.98652	Gmet_1756
menaquinol oxidoreductase complex Cbc5,			
cytochrome b subunit, putative	cbcB	6.97154	Gmet_2929
ATP synthase F0, B' subunit	atpX	6.94191	Gmet_3411
hypothetical protein		6.94131	Gmet_3649
lipopolysaccharide ABC transporter, periplasmic protein LptC	lptC	6.93733	Gmet_1280
chaperone protein DnaK	dnaK	6.92649	Gmet_3532
ribosomal protein L25	rplY	6.92608	Gmet_2847
cytochrome c	omcP	6.92552	Gmet_0557
methionine aminopeptidase, type I	map	6.92279	Gmet_0648
thymidylate synthase, FAD-dependent	thyX	6.91175	Gmet_0378
ribosomal protein L15	rplO	6.89736	Gmet_0645
chaperonin GroEL	groEL	6.87869	Gmet_0029
rubredoxin		6.8758	Gmet_3171
signal recognition particle protein	ffh	6.87401	Gmet_2872
DNA-binding protein, YbaB/EbfC family		6.87177	Gmet_3421
ResB-like family cytochrome c		6.86988	Gmet_2901
cytochrome c		6.86531	Gmet_0571
toxin, RelE family		6.85675	Gmet_2973
protein of unknown function YibQ	yibQ	6.85637	Gmet_1850
flagellar hook protein FlgE	flgE	6.85385	Gmet_3103
DNA/RNA-binding protein, putative		6.85131	Gmet_1852
translation elongation factor Ts	tsf	6.85094	Gmet_1251
cell polarity determinant GTPase MglA	mglA	6.85062	Gmet_3417
stress-responsive alpha/beta-barrel domain protein, Dabb family		6.84091	Gmet_0507
preprotein translocase, SecY subunit	secY	6.83553	Gmet_0646
ribonuclease P, protein component	rnpA	6.83523	Gmet_3563
membrane protein DUF2232, putative		6.83113	Gmet_2842
hypothetical protein		6.82236	Gmet_2392
hypothetical protein		6.81837	Gmet_0176
hypothetical protein		6.81385	Gmet_3500
protoporphyrinogen oxidase	hemY	6.8001	Gmet_3551
protein of unknown function DUF1858		6.79479	Gmet_1776
branched-chain amino acid aminotransferase	ilvE	6.77916	Gmet_2853
prephenate dehydrogenase	tyrA	6.77475	Gmet_0863
hypothetical protein		6.77341	Gmet_3634

ATP synthase F1, epsilon subunit	atpC	6.77108	Gmet_3405
5,10-methylenetetrahydrofolate dehydrogenase and			
methylenetetrahydrofolate cyclohydrolase	fold-1	6.76865	Gmet_0247
hypothetical protein		6.76074	Gmet_3552
2-oxoglutarate:ferredoxin oxidoreductase, gamma subunit	korC	6.75283	Gmet_1364
UDP-3-O-(3-hydroxyacyl)-N-acetylglucosamine/UDP- 3-N-(3-hydroxyacyl)-2-N-acetylglucosidamine deacetylase	lpxC	6.75235	Gmet_2607
aspartate 4-kinase		6.75075	Gmet_1880
4-diphosphocytidyl-2-C-methyl-D-erythritol kinase	ispE	6.75047	Gmet_2849
hypothetical protein		6.74867	Gmet_1612
biopolymer transport membrane proton channel, TolQ-related protein		6.73617	Gmet_3537
peptidoglycan-binding outer membrane lipoprotein Pal, OmpA family		6.73372	Gmet_3541
cytochrome c		6.72929	Gmet_0598
cytochrome c	omcO	6.72182	Gmet_0558
flagellar biogenesis protein FlhF	flhF	6.71742	Gmet_0427
type IV pilus secretin lipoprotein PilQ	pilQ	6.71565	Gmet_0975
radical SAM domain iron-sulfur cluster-binding oxidoreductase		6.7089	Gmet_0015
PilZ domain protein		6.7046	Gmet_0266
sigma-54-dependent transcriptional response regulator		6.70039	Gmet_0812
type IV pilus minor pilin PilW	pilW-2	6.6894	Gmet_0965
UDP-N-acetylmuramylalanyl-D-glutamate--2, 6-diaminopimelate ligase	murE	6.68911	Gmet_0407
regulatory protein, CxxC_CxxC_SSSS domain-containing, putative		6.68674	Gmet_1163
sigma-54-dependent transcriptional response regulator		6.684	Gmet_2924
cysteinyl-tRNA synthetase	cysS	6.6833	Gmet_0057
ribosomal protein L22	rplV	6.68057	Gmet_0631
hypothetical protein		6.6768	Gmet_1763
hypothetical protein		6.67243	Gmet_0703
hypothetical protein		6.66997	Gmet_2719
transcription elongation factor NusG	nusG	6.66938	Gmet_0614
response regulator		6.66938	Gmet_0955
ribosome recycling factor	frr	6.6612	Gmet_1253
O-acetyl-L-homoserine sulfhydrylase	metY-1	6.6612	Gmet_2390
tRNA (N1-methyl-G37)-methyltransferase	trmD	6.6612	Gmet_2868
3-deoxy-D-arabino-heptulosonate 7-phosphate synthase	aroF	6.65918	Gmet_2375
cell polarity determinant GTPase-activating protein MgIB	mglB	6.6568	Gmet_3418

ribosomal protein L19	rplS	6.65513	Gmet_2866
ribose-5-phosphate 1-pyrophosphokinase	prsA	6.65432	Gmet_2848
hypothetical protein		6.65249	Gmet_A3644
hypothetical protein		6.65142	Gmet_1831
transaldolase		6.64772	Gmet_0497
tungstate ABC transporter, membrane protein	tupB	6.64537	Gmet_1040
chromosome partitioning ATPase Soj		6.64433	Gmet_3413
ribosomal protein S6	rpsF	6.63675	Gmet_2844
DNA primase	dnaG	6.629	Gmet_0394
flagellar filament cap protein FliD	fliD	6.62726	Gmet_0444
glutamate 5-kinase	proB	6.62408	Gmet_3198
OmpH-like outer membrane protein, putative response receiver CheY associated with MCPs of class 40H	cheY40H-2	6.61058	Gmet_2356
lytic transglycosylase lipoprotein, putative		6.59575	Gmet_2308
membrane protein implicated in colicin V production		6.58931	Gmet_2481
polypeptide formylmethionine deformylase	def-1	6.58253	Gmet_0393
quinolinate phosphoribosyltransferase, decarboxylating	nadC	6.58177	Gmet_3338
large-conductance mechanosensitive channel protein	mscL	6.57537	Gmet_1988
hypothetical protein		6.56414	Gmet_2522
2-oxoglutarate:ferredoxin oxidoreductase, alpha subunit		6.56302	Gmet_A3568
flagellum-specific ATPase Flil	korA	6.56044	Gmet_1362
cell shape-determining protein MreB	flil	6.55504	Gmet_3109
ribosomal protein L11	mreB	6.55142	Gmet_0918
5-formyltetrahydrofolate cyclo-ligase	rplK	6.54956	Gmet_0615
ATP synthase F1, beta subunit		6.54667	Gmet_1179
NADPH oxidoreductase, beta subunit	atpD	6.54649	Gmet_3406
protein of unknown function DUF3106	sfrB	6.5417	Gmet_3023
hypothetical protein		6.54129	Gmet_2610
fructose-1,6-bisphosphatase		6.53895	Gmet_2925
hypothetical protein	fbp	6.51681	Gmet_1921
ketose-1,6-bisphosphate aldolase, class II, putative		6.51681	Gmet_3189
coenzyme A pyrophosphatase		6.51593	Gmet_2383
lipoprotein, putative		6.49682	Gmet_0068
type IV pilus assembly protein PilY1	pilY1-2	6.49539	Gmet_2590
response receiver-modulated diguanylate cyclase		6.49137	Gmet_0967
D-3-phosphoglycerate dehydrogenase	serA	6.48612	Gmet_0069
ribosomal protein L3	rplC	6.48143	Gmet_2378
L-aspartate oxidase	nadB	6.47926	Gmet_0626
protein of unknown function DUF503		6.44827	Gmet_1954
sensor histidine kinase, HAMP domain-containing		6.44646	Gmet_2411
hypothetical protein		6.4434	Gmet_3382
		6.43881	Gmet_0565

16S rRNA (N4-methyl-C1402)-methyltransferase	rsmH	6.43536	Gmet_0404
ATP synthase F1, gamma subunit	atpG	6.43379	Gmet_3407
menaquinol oxidoreductase complex Cbc5, cytochrome c subunit	cbcC	6.42674	Gmet_2930
cell division protein MraZ	mraZ	6.42514	Gmet_0403
hypothetical protein		6.42304	Gmet_1546
winged helix-turn-helix transcriptional regulator, Rrf2 family		6.42232	Gmet_1907
UDP-N-acetylmuramyl-(pentapeptide)--undecaprenyl-phosphate N-acetylmuramyl-(pentapeptide)-phosphotransferase	mraY	6.41654	Gmet_0409
cell division protein, SpolIID family, putative adenosine kinase		6.41234	Gmet_0850
		6.40523	Gmet_2388
type IV pilus biogenesis protein PilO	pilO	6.40396	Gmet_0973
purine nucleoside phosphoramidase	hinT	6.40068	Gmet_1225
response receiver CheY associated with MCPs of classes 40H and 40+24H	cheY64H-1	6.39339	Gmet_3119
ferritin-like domain protein		6.39271	Gmet_3145
chaperone protein DnaJ	dnaJ	6.38261	Gmet_3531
acetolactate synthase, large subunit, biosynthetic type	ilvB	6.37973	Gmet_1260
RNA-binding KH domain protein, putative hypothetical protein		6.3717	Gmet_2870
		6.36902	Gmet_3120
D-alanine--D-alanine ligase, cell division protein FtsQ fusion	ddl/ftsQ	6.36517	Gmet_0415
RNA polymerase sigma-54 factor RpoN	rpoN	6.36073	Gmet_1283
twin-arginine translocation pathway protein TatB	tatB	6.35308	Gmet_3543
flagellar motor switch protein FliG	fliG	6.35121	Gmet_3111
isopropylmalate/citramalate isomerase, large subunit	leuC	6.35019	Gmet_1268
6-carboxy-5,6,7,8-tetrahydropterin synthase	queD	6.34805	Gmet_1657
sensor cyclic diguanylate phosphodiesterase, HAMP and GAF domain-containing, putative heme-binding site		6.34611	Gmet_0849
amino acid aminotransferase, putative	bamJ	6.34548	Gmet_2078
succinate dehydrogenase/fumarate reductase, flavoprotein subunit	frdA	6.34238	Gmet_2396
lipoprotein, putative		6.30936	Gmet_1702
chaperonin GroES	groES	6.30506	Gmet_0028
RNA-binding protein YlxRQ, putative	ylxRQ	6.30113	Gmet_1585
hypothetical protein		6.29679	Gmet_2504
cytochrome c		6.29621	Gmet_1868
lipopolysaccharide biogenesis outer membrane chaperone lipoprotein LptE, putative	lptE	6.29453	Gmet_2299

hypothetical protein		6.28464	Gmet_3388
universal stress protein Usp	usp-2	6.28413	Gmet_2678
sensor diguanylate cyclase/phosphodiesterase, PAS domain-containing		6.27851	Gmet_0987
nitrogen fixation transcript antitermination response regulator, ANTAR domain-containing	gnfR	6.27654	Gmet_0660
peptidylprolyl cis-trans isomerase, FKBP-type AMMECR1 family protein		6.27571	Gmet_3146
cell division ATP-dependent zinc protease FtsH	ftsH-2	6.26988	Gmet_2688
helix-turn-helix transcriptional regulator, GntR family menaquinol oxidoreductase complex Cbc4, cytochrome c subunit	cbsC-2	6.26733	Gmet_1890
response receiver sensor diguanylate cyclase, PAS domain-containing		6.26447	Gmet_0062
septum formation initiator family protein	divIC	6.26193	Gmet_0325
flagellin export facilitator protein Fls	fls	6.25984	Gmet_1917
type II secretion system protein Pulp,		6.2591	Gmet_1432
putative adenosine nucleotide alpha-hydrolase superfamily protein	pulp	6.25636	Gmet_0445
flagellar assembly protein Flh	flh	6.25319	Gmet_1860
protein of unknown function YGGT		6.25129	Gmet_2987
SsrA-binding protein	smpB	6.25089	Gmet_3110
NADPH-dependent glutamate synthase, NADPH oxidoreductase subunit		6.24617	Gmet_1166
flagellar basal body rod protein FlgB	flgB	6.24617	Gmet_1646
type IV pilus minor pilin PilV	pilV-2	6.23623	Gmet_1754
ribosomal protein S16	rpsP	6.2359	Gmet_3115
anaerobic magnesium-protoporphyrin IX monomethyl ester oxidative cyclase-related enzyme		6.23511	Gmet_0964
DNA protection single-strand-binding protein DprA	dprA	6.22986	Gmet_2871
cystathionine gamma-synthase/beta-lyase	metC-2	6.22299	Gmet_0597
glyceraldehyde-3-phosphate dehydrogenase, type I	gapA	6.21776	Gmet_0890
winged-helix transcriptional response regulator		6.21149	Gmet_0699
sensor diguanylate cyclase, GAF domain-containing		6.20204	Gmet_1946
ketol-acid reductoisomerase, class I	ilvC	6.20057	Gmet_3383
peptidoglycan-binding outer membrane lipoprotein Pal, OmpA family		6.19269	Gmet_2721
PEP motif-containing protein, putative exosortase substrate		6.18975	Gmet_1262
transcriptional regulator, Fur family		6.17799	Gmet_3499
transcription elongation factor NusA	nusA	6.17756	Gmet_2042
isoleucyl-tRNA synthetase	ileS	6.17674	Gmet_3240
		6.17653	Gmet_1584
		6.17578	Gmet_0351

chorismate mutase		6.1714	Gmet_1955
phosphatidylserine decarboxylase, putative		6.15788	Gmet_1263
protein of unknown function DUF1573		6.15637	Gmet_1031
acetyl-CoA carboxylase, carboxyl			
transferase, beta subunit	accD	6.15613	Gmet_2476
recombination protein RecR	recR	6.15597	Gmet_3420
hypothetical protein		6.15526	Gmet_2856
hypothetical protein		6.15454	Gmet_2781
cobalamin-5'-phosphate synthase	cobS	6.15198	Gmet_0468
metal-dependent hydrolase, beta-lactamase superfamily		6.15184	Gmet_0954
twin-arginine translocation pathway			
protein, TatA/TatE family	tatA	6.14995	Gmet_3217
Ech-hydrogenase-related complex, small			
subunit	ehrS-2	6.14976	Gmet_0369
pentapeptide repeat protein		6.14887	Gmet_1851
carbonic anhydrase, beta-family, clade D		6.14776	Gmet_0774
peroxiredoxin, typical 2-Cys subfamily	prx-2	6.14254	Gmet_3186
lipoprotein cytochrome c		6.14233	Gmet_1088
S-adenosylmethionine--tRNA			
ribosyltransferase-isomerase	queA	6.14183	Gmet_0851
hypothetical protein		6.13978	Gmet_A3577
ResC/HemX-like cytochrome c		6.13598	Gmet_3232
type IV pilus biogenesis ATPase PilM	pilM	6.12658	Gmet_0971
flagellar M-ring mounting plate protein FliF	fliF	6.11466	Gmet_3112
6,7-dimethyl-8-ribityllumazine synthase	ribH	6.11051	Gmet_1627
lipoprotein, putative		6.10866	Gmet_0357
UDP-N-acetylmuramylalanyl-D-glutamyl-2,			
6-diaminopimelate--D-alanyl-D-alanine			
ligase	murF	6.10805	Gmet_0408
flagellar hook-length control protein FliK	fliK	6.10746	Gmet_3106
regulatory subunit of short ATP			
phosphoribosyltransferase	hisZ	6.10335	Gmet_3259
glyoxalate/3-oxopropanoate/4-oxobutanoate reductase-			
related protein		6.09361	Gmet_1972
flagellar motor switch protein FliM	fliM	6.08829	Gmet_3100
hypothetical protein		6.08802	Gmet_3107
hypothetical protein		6.08766	Gmet_1131
serine O-acetyltransferase	cysE	6.0842	Gmet_0870
3-oxoacyl-(acyl carrier protein) synthase III	fabH-1	6.08284	Gmet_3272
ATP--methionine S-adenosyltransferase	metK-1	6.08178	Gmet_1290
UDP-glucose 6-dehydrogenase	ugd	6.08023	Gmet_1430
hypothetical protein		6.07871	Gmet_3521
acyl-(acyl carrier protein)--phosphate			
acyltransferase	plsX	6.07832	Gmet_1598
phosphoenolpyruvate carboxykinase, GTP-			
dependent	pckA	6.07273	Gmet_2638
hypothetical protein		6.07108	Gmet_0550

phosphoribosylformylglycinamide cyclo-				
ligase	purM	6.06587	Gmet_1844	
hypothetical protein		6.06484	Gmet_0233	
uroporphyrinogen decarboxylase	hemE	6.06136	Gmet_0016	
3,4-dihydroxy-2-butanone-4-phosphate				
synthase and GTP cyclohydrolase II	ribA	6.05814	Gmet_1626	
3-dehydroquinate dehydratase, type II	aroQ	6.05216	Gmet_0981	
sulfate adenyllyltransferase, subunit 2	cysD	6.05216	Gmet_2859	
protein of unknown function DUF2062		6.04453	Gmet_3130	
RNA-binding protein YhbY	yhbY	6.04307	Gmet_1764	
NADPH oxidoreductase, alpha subunit	sfrA	6.04158	Gmet_3022	
hypothetical protein		6.03115	Gmet_3605	
antitoxin		6.02985	Gmet_2602	
glutamyl-tRNA reductase	hemA	6.02819	Gmet_3233	
ADP-[pyruvate phosphate dikinase]-threonine				
phosphotransferase and [pyruvate phosphate dikinase]-		6.02733	Gmet_3384	
phosphothreonine--phosphate pyrophosphorylase				
DNA-directed RNA polymerase, beta-prime				
subunit	rpoC	6.02619	Gmet_0620	
type II secretion system inner membrane				
protein PufF	pufF	6.02616	Gmet_1865	
biopolymer transport membrane protein, TolR-related				
protein		6.02377	Gmet_3538	
adenosine-5'-phosphosulfate reductase,				
glutathione-dependent	apr	6.02173	Gmet_2858	
membrane protein DedA		6.02146	Gmet_0502	
aspartyl/glutamyl-tRNA(Asn/Gln)				
amidotransferase, C subunit	gatC	6.01876	Gmet_0076	
type II secretion system pseudopilin TkIG	tkIG	6.01876	Gmet_0553	
nitrogen fixation iron-sulfur cluster				
assembly cysteine desulfurase NifS	nifS-1	6.01516	Gmet_0992	
polyribonucleotide nucleotidyltransferase	pnp	6.0134	Gmet_1591	
adenylosuccinate synthetase	purA	6.01032	Gmet_3260	
ABC transporter, ATP-binding protein	ybhF-C1	6.0072	Gmet_0657	
ACT domain protein		6.00698	Gmet_1824	
twitching motility pilus retraction ATPase	pilT-4	6.00659	Gmet_1394	
ParA family protein		6.00627	Gmet_1849	
ABC transporter, ATP-binding protein		6.0038	Gmet_1743	
protein of unknown function DUF2168		6.0038	Gmet_2867	
peptidylprolyl cis-trans isomerase, PpiC-type, SurA family		6.00201	Gmet_3549	
hypothetical protein		6.00154	Gmet_3032	
metal-dependent phosphohydrolase, HDOD domain-containing		5.99824	Gmet_0464	
ATP-dependent chaperone and Clp				
protease specificity component ClpX	clpX	5.99824	Gmet_1872	
N-acylhomoserine lactone synthetase-related protein		5.99691	Gmet_2037	
protein of unknown function DUF28		5.99241	Gmet_0743	

ATP-independent chaperone, alpha-crystallin/Hsp20 family	hspA-1	5.99091	Gmet_2986
nitrogen fixation iron-sulfur cluster assembly protein NifU	nifU	5.98815	Gmet_0991
ribosomal subunit interface-associated sigma-54 modulation protein RaiA	raiA	5.9863	Gmet_1284
hypothetical protein		5.98521	Gmet_0446
hypothetical protein		5.97486	Gmet_3594
HAD superfamily hydrolase		5.97315	Gmet_1090
2-C-methyl-D-erythritol-4-phosphate cytidylyltransferase	ispD	5.96694	Gmet_0060
3-deoxy-D-manno-octulosonate cytidylyltransferase	kdsB	5.96606	Gmet_1275
type II secretion system pseudopilin OxpG	oxpG	5.9646	Gmet_1857
hypothetical protein		5.96323	Gmet_1742
RNA polymerase sigma-32 factor RpoH	rpoH	5.96237	Gmet_2854
ParB-like nuclease domain protein, putative transcriptional regulator		5.96237	Gmet_3412
histidinol-phosphate phosphatase, putative	hisN	5.95973	Gmet_0697
diaminopimelate epimerase	dapF	5.95949	Gmet_2992
UDP-glucose/UDP-N-acetylglucosamine 4-epimerase	galE-1	5.95911	Gmet_2329
peptidoglycan transglycosylase and transpeptidase FtsI	ftsI	5.95568	Gmet_0406
antitoxin, HicB family		5.94955	Gmet_2591
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		5.94551	Gmet_2971
nucleotidyltransferase, putative		5.94451	Gmet_0479
malonyl-CoA--acyl carrier protein transacylase	fabD-2	5.94049	Gmet_1600
hypothetical protein		5.93762	Gmet_2742
ribosome-binding factor A	rbfA	5.93631	Gmet_1587
ATP-independent chaperone, alpha-crystallin/Hsp20 family		5.93524	Gmet_2635
ribosomal protein L9	rplI	5.93389	Gmet_2841
NAD-dependent nucleoside diphosphate-sugar epimerase/dehydratase	hpnA	5.92862	Gmet_2821
hydrogenase accessory protein HypB	hypB	5.92424	Gmet_0120
hypothetical protein		5.92424	Gmet_0596
zinc finger transcriptional regulator, TraR/DksA family		5.92424	Gmet_3204
flagellar basal body stator protein MotB	motB	5.92154	Gmet_0460
TPR domain protein		5.91332	Gmet_0856
cell division protein FtsW	ftsW	5.91075	Gmet_0411
response receiver-related domain protein		5.90736	Gmet_1747
ankyrin repeat protein		5.90377	Gmet_0162
peptidoglycan-binding inner membrane lipoprotein YiaD, OmpA family		5.89764	Gmet_0509

hypothetical protein		5.89096	Gmet_2916
hypothetical protein		5.8904	Gmet_0347
type IV prepilin-like proteins leader peptide processing enzyme	pilD	5.88201	Gmet_0959
pantoate--beta-alanine ligase	panC	5.87778	Gmet_1643
preprotein translocase, SecE subunit	secE	5.87693	Gmet_0613
dephospho-coenzyme A kinase		5.87336	Gmet_3026
single-strand-binding protein	ssb	5.8696	Gmet_0362
phosphoesterase, putative		5.86856	Gmet_1588
response receiver sensor diguanylate cyclase, GAF domain-containing		5.86828	Gmet_1914
serine hydroxymethyltransferase	glyA	5.86765	Gmet_1605
lipoprotein, putative		5.8643	Gmet_0574
peptidylprolyl cis-trans isomerase, PpiC-type		5.86416	Gmet_0932
NUDIX hydrolase, coenzyme A pyrophosphatase family		5.8619	Gmet_0265
hypothetical protein		5.84813	Gmet_1270
ribulose-phosphate 3-epimerase	rpe	5.84407	Gmet_0067
hypothetical protein		5.84304	Gmet_2745
transcription termination factor Rho	rho	5.84035	Gmet_0376
hypothetical protein		5.83677	Gmet_0425
flagellar basal body stator protein MotA	motA	5.83677	Gmet_0461
glyoxalase/bleomycin resistance protein/dioxygenase superfamily protein		5.83523	Gmet_3328
ribose-5-phosphate isomerase B	rpiB-1	5.83435	Gmet_1604
electron transfer flavoprotein-associated cytochrome b and CCG domain pair iron-sulfur cluster-binding oxidoreductase		5.83404	Gmet_0685
CBS and CorC_HlyC domain protein		5.83281	Gmet_2368
ferredoxin	frx-6	5.83113	Gmet_3170
hypothetical protein		5.82645	Gmet_3132
CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase	pgsA-1	5.82626	Gmet_1952
glycosyltransferase		5.82521	Gmet_2041
superoxide dismutase, iron/manganese-containing	sodA	5.82363	Gmet_2410
2-oxoacid:ferredoxin oxidoreductase, gamma subunit	vorC	5.82331	Gmet_1309
carbohydrate kinase, PfkB family		5.82214	Gmet_2812
type IV pilus biogenesis protein PilN	pilN	5.81848	Gmet_0972
protein L-isoaspartate O-methyltransferase	pcm	5.80654	Gmet_1420
amino acid-binding ACT domain regulatory protein		5.80559	Gmet_3554
hypothetical protein		5.8039	Gmet_2895
2-oxoacid:ferredoxin oxidoreductase, ferredoxin subunit	vorD	5.80256	Gmet_1306
2-isopropylmalate synthase	leuA	5.79794	Gmet_1265
UDP-glucuronate decarboxylase	uxs	5.79704	Gmet_1431

ATP-dependent Clp protease, proteolytic subunit ClpP	clpP	5.79213	Gmet_1873
acetate kinase	ackA	5.79185	Gmet_1034
flavin and coenzyme A sequestration protein dodecin		5.7916	Gmet_3147
lipoprotein, putative		5.7916	Gmet_3148
HAD superfamily hydrolase		5.79028	Gmet_2814
type VI secretion system needle tube protein TssD	tssD	5.78896	Gmet_0280
periplasmic polysaccharide biosynthesis/export protein methyl-accepting chemotaxis sensory transducer, class 40+24H	mcp64H-2	5.78723	Gmet_2478
transcription elongation factor GreA	greA	5.78222	Gmet_1775
amino acid aminotransferase, putative		5.77947	Gmet_0732
helix-turn-helix transcriptional regulator with cupin domain		5.77947	Gmet_3438
protein of unknown function YcbK	ycbK	5.77904	Gmet_1751
lytic transglycosylase domain protein		5.7741	Gmet_3262
precorrin-2 dehydrogenase and sirohydrochlorin ferrochelatase, putative	cysG	5.77223	Gmet_3231
antitoxin, RHH family		5.77223	Gmet_A3570
HNH endonuclease family protein		5.77083	Gmet_0915
electron transfer flavoprotein, beta subunit	etfB-1	5.76812	Gmet_0683
hypothetical protein		5.76463	Gmet_3005
iron-containing alcohol dehydrogenase		5.763	Gmet_1053
cytidylate kinase-like domain phospholipid-binding protein, putative		5.76284	Gmet_1979
phosphate/sulfate transporter family membrane protein		5.75728	Gmet_3131
3-deoxy-D-arabino-heptulosonate 7-phosphate synthase	aroG-2	5.75564	Gmet_0346
peptidylprolyl cis-trans isomerase, PpiC-type		5.75564	Gmet_0815
cytosolic peptidylprolyl cis-trans isomerase, cyclophilin A-like protein	ppiA	5.75206	Gmet_0137
CTP synthetase	pyrG	5.74945	Gmet_1276
integration host factor, beta subunit	ihfB-2	5.74867	Gmet_0868
protein of unknown function, DUF4124-containing		5.74632	Gmet_1226
glutamyl-5-phosphate reductase	proA	5.74481	Gmet_3199
aspartyl-tRNA synthetase	aspS	5.74367	Gmet_1357
glycyl-tRNA synthetase, alpha subunit	glyQ	5.74284	Gmet_2942
toxin, RelE family		5.73837	Gmet_A3569
WHy domain lipoprotein		5.73649	Gmet_2480
UDP-N-acetylglucosamine 1-carboxyvinyltransferase	murA	5.72863	Gmet_0382
rRNA methyltransferase, YqxC-related, putative		5.72605	Gmet_1222
TPR domain protein		5.72477	Gmet_0979
undecaprenyl diphosphate synthase	uppS	5.72406	Gmet_1254
cell division protein FtsZ	ftsZ	5.72354	Gmet_0417
GTPase-activating protein, putative		5.71962	Gmet_0980

response regulator, putative		5.71962	Gmet_3179
sensor cyclic diguanylate phosphodiesterase, GAF and GAF domain-containing		5.71739	Gmet_2559
LysM domain protein		5.71634	Gmet_3226
hypothetical protein		5.71622	Gmet_1740
hypothetical protein		5.71565	Gmet_3606
S-adenosyl-L-homocysteine hydrolase	ahcY	5.71464	Gmet_1294
translation elongation factor P	efp-1	5.71394	Gmet_0099
ribosome biogenesis GTPase ObgE	obgE	5.71139	Gmet_3197
shikimate 5-dehydrogenase	aroE	5.71062	Gmet_1392
lipoprotein, putative		5.70851	Gmet_1301
lysyl-tRNA synthetase	lysS	5.70453	Gmet_2360
cysteine desulfurase family protein		5.70216	Gmet_1300
ATP-dependent RNA helicase RhIE	rhIE-1	5.69892	Gmet_3043
NHL repeat domain lipoprotein		5.69742	Gmet_1869
hypothetical protein		5.697	Gmet_A3576
hypothetical protein		5.69597	Gmet_0238
hypothetical protein		5.69597	Gmet_2527
cytochrome c		5.69505	Gmet_2899
flagellar protein FlbD	flbD	5.69362	Gmet_0462
TPR domain protein		5.69047	Gmet_2555
2',3'-cyclic nucleotide 2'-phosphodiesterase		5.68817	Gmet_1181
type IV pilus assembly lipoprotein PilP	pilP	5.68466	Gmet_0974
membrane-associated phosphatase, PAP2_like_5 family		5.68306	Gmet_1347
protein of unknown function DUF937		5.68226	Gmet_2744
glyoxylase-related zinc-dependent hydrolase		5.68038	Gmet_1512
flagellar biogenesis chaperone FlgN	flgN	5.67848	Gmet_0437
UDP-N-acetylmuramate--alanine ligase	murC	5.67054	Gmet_0413
protein of unknown function DUF3015		5.67048	Gmet_2921
squalene cyclase	shc-1	5.66332	Gmet_2820
protein of unknown function DUF2288		5.6612	Gmet_0126
hypothetical protein		5.6612	Gmet_0898
peptidoglycan-binding lipoprotein, SPOR and NLPC_P60 domain-containing		5.6612	Gmet_2365
scaffold protein CheW associated with MCPs of classes 40H and 40+24H	cheW64H	5.6612	Gmet_3265
heptapeptide repeat protein		5.6612	Gmet_3659
hydroxymethylbilane synthase	hemC	5.65667	Gmet_3234
response receiver scaffold protein CheV	cheV	5.65659	Gmet_2739
peptide chain release factor 1	prfA	5.65308	Gmet_0380
ATP-independent chaperone, alpha-crystallin/Hsp20 family		5.65162	Gmet_3215
pentapeptide repeat protein		5.65104	Gmet_3227
hypothetical protein		5.64892	Gmet_0051
transketolase, B protein	tkIB	5.6474	Gmet_0552
chromosome segregation and condensation	scpA	5.6449	Gmet_1959

protein ScpA				
isopropylmalate/citramalate isomerase, small subunit	leuD	5.64472	Gmet_1269	
ribonuclease G	cafA	5.64382	Gmet_3192	
adenylate kinase	adk	5.64103	Gmet_0647	
pantothenate kinase, type III	coaX	5.63848	Gmet_1986	
apocytochrome c	resA	5.63567	Gmet_2452	
lipoprotein release ABC transporter, ATP-binding protein	lold-1	5.63544	Gmet_2358	
tryptophan synthase, alpha subunit	trpA	5.62878	Gmet_2477	
ornithine carbamyltransferase	argF	5.62759	Gmet_0205	
hypothetical protein		5.62468	Gmet_2611	
heptapeptide repeat protein		5.62468	Gmet_3658	
tRNA pseudouridine 55 synthase	truB	5.62286	Gmet_1589	
acetylglutamate kinase	argB	5.62126	Gmet_0203	
hypothetical protein		5.61938	Gmet_2780	
antitoxin, XRE family		5.61813	Gmet_2972	
ATP-dependent DNA helicase Rep	rep	5.61369	Gmet_2724	
membrane GTPase LepA	lepA	5.6098	Gmet_1766	
alanine racemase	alr	5.60705	Gmet_2908	
PilZ domain protein		5.60634	Gmet_0114	
UDP-4-amino-4-deoxy-L-arabinose formyltransferase	arnG	5.60462	Gmet_0884	
uroporphyrinogen III C2,C7-methyltransferase and uroporphyrinogen III synthase	hemD	5.59809	Gmet_3235	
porphobilinogen synthase	hemB	5.59788	Gmet_0189	
cobalt-precorrin-5B C1-methyltransferase	cbiD	5.59743	Gmet_0478	
outer membrane lipoprotein carrier/sorting protein LolA		5.59635	Gmet_3208	
organic solvent tolerance ABC transporter, periplasmic substrate-binding protein		5.59511	Gmet_0784	
nucleotide cyclase, HAMP and GGDEF-related domain-containing		5.59455	Gmet_1989	
tRNA (5-carboxymethylaminomethyl-2-thio-U34) synthesis sulfur carrier protein	tusA-2	5.59166	Gmet_3454	
outer membrane protein assembly complex protein YaeT	yaeT	5.59053	Gmet_2357	
transketolase, A protein	tkIA	5.58666	Gmet_0551	
dihydropteroate synthase	folP	5.58485	Gmet_1889	
lipopolysaccharide ABC transporter, ATP-binding protein	lptB	5.5832	Gmet_1282	
TPR domain protein		5.5811	Gmet_1233	
valyl-tRNA synthetase	valS	5.58103	Gmet_0956	
metal-dependent hydrolase, beta-lactamase superfamily protein of unknown function DUF37		5.57724	Gmet_1030	
histidyl-tRNA synthetase	hisS	5.57631	Gmet_3562	
flagellar motor switch protein FliN	fliN	5.57505	Gmet_1913	
		5.57374	Gmet_3099	

pyruvate:ferredoxin/flavodoxin oxidoreductase	por	5.57291	Gmet_3419
serine protease, subtilase family		5.57212	Gmet_0931
membrane protein DUF318		5.56718	Gmet_0563
NADH dehydrogenase I, H subunit	nuoH-2	5.56634	Gmet_0161
3-phosphoshikimate 1-carboxyvinyltransferase	aroA	5.56406	Gmet_0864
PilZ domain protein		5.56365	Gmet_0459
3-isopropylmalate/3-methylmalate dehydrogenase	leuB	5.56252	Gmet_0602
TPR domain protein		5.56027	Gmet_1635
aspartate-4-semialdehyde dehydrogenase	asd-2	5.55942	Gmet_0603
outer membrane lipoprotein LolB, putative		5.55876	Gmet_3378
DNA polymerase III, delta-prime subunit	holB	5.55811	Gmet_2319
protein export membrane protein SecF	secF	5.55758	Gmet_0855
lipoprotein, putative		5.55725	Gmet_0561
RNA polymerase sigma-24 factor, putative	rpoE	5.55725	Gmet_2612
DNA-directed RNA polymerase, beta subunit	rpoB	5.55647	Gmet_0619
nitrogen fixation iron-sulfur cluster assembly cysteine desulfurase NifS	nifS-2	5.55516	Gmet_0872
2-oxoacid dehydrogenase acyltransferase protein		5.55512	Gmet_2040
hypothetical protein		5.555	Gmet_3327
peptidoglycan-binding protein, OmpA family		5.55259	Gmet_1832
N-acetyl-glutamyl-5-phosphate reductase	argC	5.54884	Gmet_0608
hypothetical protein		5.54819	Gmet_0665
nitrite/sulfite reductase domain protein		5.54407	Gmet_2520
UDP-N-acetylmuramylalanine--D-glutamate ligase	murD	5.54174	Gmet_0410
type IV pilus inner membrane protein PilC	pilC	5.53503	Gmet_1395
homoserine O-acetyltransferase	metX	5.53496	Gmet_2783
UDP-2-acetamido-2-deoxy-alpha-D-ribo-hexopyranos-3-ulose 3-aminotransferase	gnnB	5.53388	Gmet_2351
hypothetical protein		5.52996	Gmet_0054
hypothetical protein		5.52996	Gmet_0560
hypothetical protein		5.52996	Gmet_1976
lipoprotein, putative		5.52996	Gmet_3525
glucosamine-1-phosphate N-acetyltransferase and N-acetylglucosamine-1-phosphate uridylyltransferase	glmU	5.52823	Gmet_0103
Holliday junction DNA helicase RuvB	rvuB	5.52752	Gmet_0746
cell division septum formation protein FtsL, putative	ftsL	5.52627	Gmet_0405
acyl-(acyl carrier protein)--UDP-3-O-(3-hydroxyacyl)-glucosamine/UDP-3-N-(3-hydroxyacyl)-glucosidamine 2-N-acyltransferase	lpxD	5.52578	Gmet_2355

type IV pilus biogenesis ATPase PilB	pilB	5.52015	Gmet_1393
preprotein translocase, SecA subunit	secA	5.51985	Gmet_0951
protein of unknown function DUF86		5.51954	Gmet_1317
peptidase, U32 family		5.5195	Gmet_0040
branched-chain amino acid ABC			
transporter, periplasmic amino acid-binding			
protein, putative	livK	5.51801	Gmet_1823
flagellar hook-filament junction protein FlgL	flgL	5.51733	Gmet_0439
ferritin-like domain protein		5.51498	Gmet_3238
flagellar P-ring protein Flgl	flgl	5.51183	Gmet_0434
aspartate-4-semialdehyde dehydrogenase	asd-1	5.5092	Gmet_0604
heat-inducible transcription repressor HrcA	hrcA	5.5064	Gmet_3534
tRNA (2-methylthio-N6-dimethylallyl-A37)			
methylthiotransferase	miaB	5.50266	Gmet_2296
cobalt-precorrin-8X methylmutase	cbiC	5.49797	Gmet_0477
cytochrome c		5.49697	Gmet_2432
transposase, IS630 family		5.49387	Gmet_2039
3-oxoacyl-(acyl carrier protein) synthase III	fabH-2	5.49293	Gmet_1599
RNA polymerase sigma-70 factor RpoD	rpoD	5.49252	Gmet_0395
hypothetical protein		5.49128	Gmet_A3566
glutamate--dTDP-6-deoxy-D-xylo-hex-3-			
ulose 3-aminotransferase	fdtB	5.48687	Gmet_1325
transcription antitermination factor NusB	nusB	5.48478	Gmet_1628
ATP--methionine S-adenosyltransferase	metK-2	5.48135	Gmet_2549
NADPH-dependent glutamate synthase, iron-sulfur			
cluster-binding subunit		5.47678	Gmet_1755
leucyl-tRNA synthetase	leuS	5.47678	Gmet_2300
protein of unknown function DUF399		5.47655	Gmet_0349
outer membrane channel, putative		5.47646	Gmet_1649
mannose-1-phosphate guanylyltransferase and mannose-			
6-phosphate isomerase-related protein		5.47372	Gmet_3178
glycyl-tRNA synthetase, beta subunit	glyS	5.47305	Gmet_2941
lactate racemase	larA	5.471	Gmet_3244
GAF domain phosphoenolpyruvate--protein			
phosphotransferase PtsP	ptsP	5.46882	Gmet_2404
hypothetical protein		5.46856	Gmet_3601
phosphoribosylglycinamide			
formyltransferase, folate-dependent	purN	5.45957	Gmet_1845
peptide chain release factor 3	prfC	5.45916	Gmet_0192
phosphoribosylaminoimidazole-			
succinocarboxamide synthase	purC	5.45811	Gmet_0916
Rossmann fold nucleotide-binding protein		5.45475	Gmet_1655
lipoprotein, putative		5.45262	Gmet_3588
hypothetical protein		5.45099	Gmet_1091
transport protein, Tim44-like domain, putative		5.44993	Gmet_1927
lipoprotein release ABC transporter,			
membrane protein	lolE-1	5.44898	Gmet_2359

peptide chain release factor				
methyltransferase	hemK	5.4489	Gmet_0381	
transcriptional repressor, LexA family	lexA	5.44594	Gmet_1439	
D-lactate dehydrogenase, flavoprotein				
subunit, putative	larD	5.44507	Gmet_3245	
3-oxoacyl-(acyl carrier protein) synthase II	fabF-1	5.4406	Gmet_1695	
hydrogenase assembly chaperone				
HypC/HupF	hypC	5.43881	Gmet_0118	
helix-turn-helix transcriptional regulator, LexA-related				
protein		5.43881	Gmet_0130	
molybdopterin--molybdenum ligase	moeA-1	5.43881	Gmet_1038	
hypothetical protein		5.43881	Gmet_1956	
hypothetical protein		5.43881	Gmet_A3641	
GDP-mannose 4,6-dehydratase and GDP-6-				
deoxy-D-lyxo-4-hexulose reductase	gmd-1	5.43681	Gmet_1311	
tRNA (adenosine-34) deaminase	tadA	5.43461	Gmet_3524	
ferritin-like domain protein		5.43403	Gmet_3242	
antibiotic biosynthesis monooxygenase domain protein		5.4312	Gmet_1662	
response receiver histidine kinase		5.42832	Gmet_0350	
response receiver CheY	cheY-4	5.42674	Gmet_1607	
preprotein translocase subunit YidC	yidC	5.42532	Gmet_3561	
HAD superfamily hydrolase, ferritin-like domain-containing		5.42487	Gmet_3083	
hypothetical protein		5.42351	Gmet_3004	
hypothetical protein		5.41835	Gmet_3515	
enoyl-CoA hydratase/isomerase		5.4167	Gmet_1575	
hypothetical protein		5.41647	Gmet_2906	
hypothetical protein		5.41567	Gmet_0139	
organic solvent tolerance ABC transporter, ATP-binding				
protein		5.41545	Gmet_0787	
TPR domain protein		5.41509	Gmet_3216	
sigma-54-dependent transcriptional				
response regulator PilR	pilR	5.41504	Gmet_1397	
type IV pilus minor pilin FimU	fimU	5.41328	Gmet_0963	
molybdopterin adenylyltransferase MoaB,				
putative	moaB	5.41218	Gmet_1036	
3-oxoacyl-(acyl carrier protein) reductase	fabG-1	5.41218	Gmet_1694	
BioD and DRTGG domain protein		5.41184	Gmet_2784	
phenylalanyl-tRNA synthetase, alpha				
subunit	pheS	5.41088	Gmet_1415	
ABC transporter, ATP-binding protein		5.41055	Gmet_2407	
menaquinol oxidoreductase complex Cbc5,				
cytochrome c subunit putative, HAMP				
domain-containing protein	cbcD	5.40529	Gmet_2931	
UDP-4-amino-4-deoxy-L-arabinose--				
oxoglutarate aminotransferase	arnB	5.40114	Gmet_0886	
amino acid aminotransferase, putative		5.40016	Gmet_3325	

hypothetical protein		5.39817	Gmet_2670
sulfatase		5.39726	Gmet_0526
4-amino-5-hydroxymethyl-2-methylpyrimidine- phosphate synthase	thiC-2	5.39684	Gmet_0471
sensor histidine kinase, GAF and GAF domain-containing PDDEXK_3 family protein		5.39675	Gmet_3279
protein of unknown function DUF1858		5.39606	Gmet_3252
membrane protein, putative		5.39372	Gmet_1758
Ech-hydrogenase-related complex, large subunit	ehrL-2	5.39234	Gmet_3456
sensor histidine kinase, Cache_1, HAMP and PAS domain-containing rubrerythrin		5.39069	Gmet_0371
hypothetical protein		5.38916	Gmet_2811
cobalt-precorrin-3 C17-methyltransferase and adenosylcobyrinic acid synthase scaffold protein CheW associated with MCPs of class 40H	cbiH/cbiP cheW40H-4	5.38912	Gmet_0667
GAF sensor methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-1	5.38818	Gmet_3656
cysteine synthase B	cysM	5.38728	Gmet_0485
lipoprotein, putative		5.38703	Gmet_2706
V-type proton-translocating pyrophosphatase	hppA	5.38683	Gmet_1641
succinyl:acetate coenzyme A transferase	ato-1	5.38409	Gmet_0264
lipoate-protein ligase A	lplA	5.38267	Gmet_3015
UDP-N-acetylglucosamine 3-dehydrogenase, NAD-dependent	gnnA	5.37853	Gmet_3151
aldolase domain protein		5.37479	Gmet_2352
diaminopimelate decarboxylase	lysA	5.37292	Gmet_2288
toxin, MazF family		5.3717	Gmet_0219
ABC transporter, periplasmic substrate-binding protein, MCE domain-containing		5.3717	Gmet_2503
ADP-heptose--lipopolysaccharide heptosyltransferase		5.35781	Gmet_1272
hypothetical protein		5.35423	Gmet_2345
hypothetical protein		5.35354	Gmet_0489
glycerol-3-phosphate dehydrogenase, NAD(P)-dependent	gpsA	5.35	Gmet_1313
ATP phosphoribosyltransferase, short form	hisGS	5.3457	Gmet_0008
phosphate-selective outer membrane channel		5.34435	Gmet_0383
RNA polymerase sigma-28 factor for flagellar operon	fliA	5.34361	Gmet_1042
histone deacetylase family protein		5.34071	Gmet_0429
nicotinate-nucleotide--dimethylbenzimidazole phosphoribosyltransferase	cobT	5.34021	Gmet_1739
response receiver sensor histidine kinase		5.33315	Gmet_0467
		5.3307	Gmet_2790

hypothetical protein		5.3256	Gmet_1741
CBS domain pair protein of unknown function, DRTGG and DHHA2 domain-containing		5.32541	Gmet_0503
4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase	ispG	5.32502	Gmet_1353
UDP-4-deoxy-4-formamido-L-arabinose--undecaprenyl-phosphate 4-deoxy-4-formamido-L-arabinosyltransferase	arnC	5.32295	Gmet_0885
PhoH-related ATPase		5.32279	Gmet_1302
lipoprotein cytochrome c	omcl	5.32102	Gmet_1744
protein of unknown function DUF327		5.32017	Gmet_1618
periplasmic trypsin-like serine protease			
DegP	degP-1	5.31582	Gmet_3362
flagellar rod-binding protein FlgJ	flgJ	5.31543	Gmet_0435
twin-arginine translocation pathway			
protein, TatA/TatE family	fdnT	5.31543	Gmet_1063
peptidyl-tRNA hydrolase	pth	5.31126	Gmet_2846
queuine tRNA-ribosyltransferase	tgt-2	5.3108	Gmet_0852
electron transfer flavoprotein, alpha subunit	etfA-1	5.30973	Gmet_0684
Ech-hydrogenase-related complex, small subunit	ehrS-1	5.30953	Gmet_2596
protein of unknown function DUF164		5.30554	Gmet_0400
endonuclease III-related DNA glycosidase, HhH-GPD superfamily		5.30427	Gmet_1973
lipoprotein, putative		5.30405	Gmet_0143
cell division protein DivIVA, putative		5.30275	Gmet_1165
zinc metalloendopeptidase, M23 family		5.30275	Gmet_3012
radical SAM domain iron-sulfur cluster-binding oxidoreductase		5.30002	Gmet_2734
sensor histidine kinase, GAF domain-containing		5.29596	Gmet_3180
protein of unknown function DUF1385		5.29538	Gmet_0379
sensor histidine kinase, GAF domain-containing		5.2949	Gmet_1054
pentapeptide repeat domain protein		5.29442	Gmet_3546
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain	hpN	5.29386	Gmet_2416
thiamin biosynthesis sulfur carrier protein	thiS-1	5.28923	Gmet_2933
RNA methyltransferase, TrmA family		5.28648	Gmet_1971
isoprenoid biosynthesis amidotransferase-like protein ElbB	elbB	5.28534	Gmet_3523
cobalt ABC transporter, ATP-binding protein	cbiO	5.28166	Gmet_0475
N-(5'-phosphoribosyl)anthranilate isomerase	trpF	5.28127	Gmet_2492
NADPH-dependent glutamate synthase, GXGXG domain subunit		5.28038	Gmet_1752
peptidylprolyl cis-trans isomerase, FKBP-type, putative		5.28011	Gmet_0259

diacylglycerol kinase-like protein		5.27883	Gmet_2369
tungstate ABC transporter, periplasmic		5.27787	Gmet_1041
tungstate-binding protein	tupA	5.27787	Gmet_1862
type II secretion system protein PulN, putative	pulN	5.27787	Gmet_3277
DNA repair protein RadA	radA	5.27531	Gmet_1933
DnaJ-related protein		5.27391	Gmet_0416
cell division protein FtsA	ftsA	5.27067	Gmet_0891
DNA topoisomerase I	topA	5.26754	Gmet_2310
ATPase, putative		5.26431	Gmet_2777
hypothetical protein		5.2625	Gmet_3035
ATP-dependent RNA helicase RhIB	rhIB	5.26117	Gmet_1864
type II secretion system ATPase Pule	pule	5.26067	Gmet_3089
hypothetical protein		5.25529	Gmet_3437
periplasmic trypsin-like serine protease		5.25499	Gmet_2576
lipoprotein DegQ	degQ	5.24876	Gmet_0942
CxxC_CxxC_SSSS superfamily protein		5.24617	Gmet_0386
DNA repair ATPase RecN	recN	5.24617	Gmet_1660
imidazoleglycerol-phosphate dehydratase	hisB	5.24617	Gmet_1958
hypothetical protein		5.24149	Gmet_2556
chromosome segregation and condensation		5.24007	Gmet_0882
protein ScpB	scpB	5.23618	Gmet_0140
lytic transglycosylase, SLT, LysM and LysM domain-containing		5.23618	Gmet_0567
undecaprenyl-diphospho-4-formamido-4-deoxy-L-arabinose deformylase, putative	arnD	5.22217	Gmet_2306
ResB-like family cytochrome c		5.22063	Gmet_2028
iron-sulfur cluster-binding oxidoreductase		5.21869	Gmet_0401
5,10-methylenetetrahydrofolate dehydrogenase and methenyltetrahydrofolate cyclohydrolase	fold-2	5.2169	Gmet_3528
toxin, RelE family		5.20856	Gmet_1162
translation elongation factor Tu	tuf-1	5.20624	Gmet_0316
translation initiation factor IF-1	infA	5.20552	Gmet_0624
polyphosphate/ATP-dependent NAD kinase	ppnK	5.20469	Gmet_1837
protein tyrosine kinase, putative		5.20469	Gmet_2909
HEAT-like repeat-containing protein		5.20469	Gmet_0941
hypothetical protein		5.20469	Gmet_22063
seryl-tRNA synthetase	serS	5.20469	Gmet_2306
4-amino-5-hydroxymethyl-2-methylpyrimidine-phosphate kinase and thiamin monophosphate synthase	thiE/thiD	5.20469	Gmet_0401
DNA polymerase III, gamma and tau subunits	dnaX	5.20469	Gmet_1221
ATP-dependent Lon protease (La)	lon-2	5.20469	Gmet_2776
helix-turn-helix XRE domain protein		5.20469	Gmet_3422
UDP-N-2, O-3-di-(3-	lpxH	5.20469	Gmet_1871

hydroxyacyl)glucosamine/UDP-N-2, N-3-di-				
(3-hydroxyacyl)glucosediamine				
pyrophosphatase				
hypothetical protein			5.2022	Gmet_0559
nucleoid maintenance protease YeaZ	yeaZ		5.20177	Gmet_1258
ribosomal protein S18 alanine N-				
acetyltransferase	rimI		5.20065	Gmet_1843
type II secretion system secretin lipoprotein				
PulQ	pulQ		5.19506	Gmet_1859
RNA-binding S1 domain protein			5.19503	Gmet_1102
rhomboid-related membrane protein			5.19126	Gmet_1151
integrase			5.19098	Gmet_1783
RNA pseudouridine synthase, RluA family			5.18646	Gmet_0047
sigma-54-dependent transcriptional response regulator			5.18538	Gmet_1055
PATAN domain GTPase-activating protein, putative			5.18424	Gmet_0829
DNA adenine N6-methyltransferase			5.18388	Gmet_3140
aconitate hydratase 2	acnB		5.18358	Gmet_1912
ABC transporter, ATP-binding protein			5.18348	Gmet_2479
sensor histidine kinase, PAS domain-containing			5.18065	Gmet_3455
helix-turn-helix transcriptional regulator, XRE family			5.18008	Gmet_0970
endoribonuclease L-PSP			5.17578	Gmet_2324
4-hydroxy-3-methylbut-2-en-1-yl				
diphosphate reductase	ispH		5.1676	Gmet_0866
response receiver-modulated cyclic diguanylate				
phosphodiesterase			5.16588	Gmet_1919
anthranilate phosphoribosyltransferase	trpD		5.16588	Gmet_2495
NHL repeat domain lipoprotein			5.16464	Gmet_2897
peptide chain release factor 2	prfB		5.16257	Gmet_2366
protein glutamate methyl esterase CheB	cheB-7		5.1624	Gmet_2640
hypothetical protein			5.1621	Gmet_1847
protein of unknown function DUF86			5.16128	Gmet_3258
ADP-ribose pyrophosphatase	nudF		5.16077	Gmet_0048
hypothetical protein			5.15932	Gmet_0261
aminopeptidase, M42 family			5.1587	Gmet_2294
ribosomal protein S1	rpsA		5.15747	Gmet_0867
germane superfamily protein			5.15502	Gmet_0548
lipoprotein, putative			5.15251	Gmet_0234
GTP-binding protein Era	era		5.15145	Gmet_2315
branched-chain amino acid ABC				
transporter, membrane protein	livM		5.15101	Gmet_1821
flavodoxin, putative			5.15041	Gmet_1442
cytochrome c			5.14887	Gmet_1867
flagellar L-ring lipoprotein FlgH	flgH		5.14754	Gmet_0433
ResC/HemX-like cytochrome c			5.14441	Gmet_0573
PilZ domain protein			5.14183	Gmet_0725
adenine phosphoribosyltransferase	apt		5.14183	Gmet_1422

rubredoxin:oxygen/nitric oxide oxidoreductase	roo	5.13898	Gmet_3243
5,10-methylenetetrahydrofolate reductase-associated protein		5.13513	Gmet_1161
glycogen phosphorylase	glgP	5.13355	Gmet_0940
prolyl-tRNA synthetase	proS	5.13321	Gmet_1354
ribosome-associated peptidylprolyl cis-trans isomerase, FKBP-type (trigger factor)	tig	5.12847	Gmet_1874
PAP2_like_6 family phosphatase		5.12318	Gmet_0525
recombinase A	recA	5.12218	Gmet_0198
lipoprotein cytochrome c		5.12147	Gmet_0827
uridylate kinase	pyrH	5.12063	Gmet_1252
metal-dependent hydrolase, beta-lactamase superfamily		5.11946	Gmet_0366
sulfate adenyllyltransferase, subunit 1	cysN	5.11591	Gmet_2860
hypothetical protein		5.11372	Gmet_0546
protein of unknown function DUF2914		5.1129	Gmet_0953
cell division ATP-binding protein FtsE	ftsE	5.11124	Gmet_1856
outer membrane channel, putative		5.10866	Gmet_0802
protein of unknown function DUF143		5.10866	Gmet_3201
fumarate hydratase, class I	fumB	5.10653	Gmet_2570
hypothetical protein		5.10624	Gmet_0402
response regulator, GspIIEN domain-containing		5.1045	Gmet_1737
sensor histidine kinase		5.1043	Gmet_1292
flagellar hook-basal body complex protein FliE	fliE	5.0973	Gmet_3113
adenosylcobinamide kinase and adenosylcobinamide phosphate guanylyltransferase	cobU	5.09694	Gmet_0466
thiamin biosynthesis sulfur carrier protein	thiS-2	5.09642	Gmet_1567
lipoprotein, putative		5.09642	Gmet_1830
sensor diguanylate cyclase/phosphodiesterase, HAMP and PAS domain-containing		5.09631	Gmet_0700
helix-turn-helix transcriptional regulator PuuR, cupin domain-containing	puuR	5.09592	Gmet_0901
1-deoxy-D-xylulose-5-phosphate synthase	dxs-1	5.09315	Gmet_2822
ABC transporter, membrane protein of unknown function DUF140		5.09292	Gmet_0788
UDP-N-acetylglucosamine--N-acetylmuramyl- (pentapeptide)-pyrophosphoryl-undecaprenol N-acetylglucosamine transferase	murG	5.09197	Gmet_0412
BioD and DRTGG domain protein		5.09197	Gmet_2733
glycosyltransferase		5.08825	Gmet_2884
thioredoxin reductase	trxR	5.08757	Gmet_3070
type II secretion system minor pseudopilin GspH	gspH	5.08428	Gmet_3368
ferrous iron transport protein B	feoB	5.08058	Gmet_2444

regulator, PATAN and FRGAF domain-containing, putative		5.07989	Gmet_2313
hypothetical protein		5.07827	Gmet_3002
hypothetical protein		5.07624	Gmet_2801
peptidoglycan transglycosylase and transpeptidase MrcA	mrcA	5.07538	Gmet_0354
ATP-dependent Lon protease (La)	lon-1	5.07438	Gmet_2544
helix-turn-helix transcriptional regulator, IclR family		5.07353	Gmet_0370
protein glutamate methylesterase CheB associated with MCPs of class 40H, response receiver domain-containing	cheB40H-2	5.07001	Gmet_2711
ResC/HemX-like cytochrome c		5.06863	Gmet_2900
tRNA (2' O-methyl-C32/U32)-methyltransferase	trmJ	5.06752	Gmet_1369
pyridoxine-5'-phosphate synthase	pdxJ	5.0672	Gmet_1885
HEAT-like repeat-containing protein		5.0651	Gmet_3274
phosphoglycerate mutase, 2,3-bisphosphoglycerate-independent efflux pump, RND family, outer membrane protein	gpml	5.06353	Gmet_3203
response receiver histidine kinase		5.06347	Gmet_0785
lipoprotein, putative		5.05854	Gmet_0875
phosphoglucomutase/phosphomannomutase family protein		5.05772	Gmet_0027
cytidylate kinase	cmk	5.05615	Gmet_0135
transcriptional regulator, TetR family		5.0544	Gmet_0865
cytochrome c		5.04587	Gmet_0420
tryptophan synthase, beta subunit	trpB1	5.04049	Gmet_1866
transglutaminase domain protein		5.03944	Gmet_2482
toxin, RelE family		5.03857	Gmet_0053
1,4-dihydroxy-6-naphthoate synthase	mqnD	5.03857	Gmet_2533
periplasmic carboxy-terminal processing protease		5.03735	Gmet_3380
membrane protein of unknown function DUF898	ctpA-1	5.03632	Gmet_2713
citramalate synthase	cimA	5.03286	Gmet_0097
membrane-associated metal-dependent phosphohydrolase, HDc domain-containing		5.03193	Gmet_1879
hypothetical protein		5.03154	Gmet_2371
biotin operon repressor and biotin--acetyl-CoA carboxylase ligase	birA	5.0313	Gmet_3116
RepA protein		5.03085	Gmet_1987
radical SAM domain iron-sulfur cluster-binding oxidoreductase		5.03031	Gmet_A3565
tryptophan synthase, homodimeric beta subunit	trpB2	5.0269	Gmet_1687
protein of unknown function DUF116		5.0259	Gmet_2493
nucleotide/nucleic acid-binding septum formation-inhibiting protein	maf	5.02377	Gmet_3340
		5.01126	Gmet_0895

ATP phosphoribosyltransferase, long form membrane protein, UPF0118 superfamily	hisGL	5.01054	Gmet_1898
cytochrome c		5.00854	Gmet_2774
oxidoreductase, aldo/keto reductase family		5.00476	Gmet_2898
ribonuclease III	rnc	5.00392	Gmet_1727
nucleotidyltransferase DUF294, putative		4.99824	Gmet_2317
winged helix-turn-helix transcriptional regulator, MarR family		4.99824	Gmet_3030
ABC transporter, membrane protein		4.99824	Gmet_3450
hypothetical protein		4.99295	Gmet_3036
hypothetical protein		4.99174	Gmet_3139
UDP-N-acetylenolpyruvylglucosamine reductase	murB	4.98983	Gmet_0414
cytochrome c	pccF	4.9863	Gmet_3088
hypothetical protein		4.98564	Gmet_3092
[acyl-]glycerolphosphate acyltransferase		4.98436	Gmet_0363
flagellar biogenesis ATPase FlhG	flhG	4.98313	Gmet_0428
hypothetical protein		4.98313	Gmet_0496
histidinol dehydrogenase	hisD	4.98247	Gmet_0384
lipoprotein, putative		4.98146	Gmet_0593
lipoprotein cytochrome c		4.98082	Gmet_0828
flagellar biogenesis protein FliP	fliP	4.97506	Gmet_3097
sodium/anion symporter, putative		4.97414	Gmet_2857
lipoprotein, putative		4.97315	Gmet_1617
apolipoprotein N-acyltransferase	Int	4.97315	Gmet_2367
prolidase family protein		4.9718	Gmet_0982
hypothetical protein		4.97089	Gmet_1207
toxin, RelE family		4.97053	Gmet_0221
phosphatidate cytidylyltransferase	cdsA	4.97053	Gmet_1255
ferredoxin	frx-4	4.96933	Gmet_0148
hypothetical protein		4.96933	Gmet_1951
queuine tRNA-ribosyltransferase	tgt-1	4.96662	Gmet_2398
response receiver-modulated nucleotide cyclase, GGDEF-related domain-containing		4.96606	Gmet_0945
dihydroorotate dehydrogenase, electron transfer subunit	pyrK	4.96606	Gmet_1842
cupin superfamily barrel domain protein		4.96413	Gmet_0564
ornithine:glutamate N-acetyltransferase	argJ	4.96396	Gmet_0952
helix-turn-helix transcriptional regulator, MerR family, PTSIIA domain-containing		4.96155	Gmet_2604
protein of unknown function, MJ0042_CXXC and DUF3426 domain-containing		4.96112	Gmet_1032
protein of unknown function DUF86		4.96076	Gmet_0480
DTW domain protein		4.95986	Gmet_0179
pyranopterin monophosphate cyclase	moaC	4.95964	Gmet_1037
protein export membrane protein SecD	secD	4.95365	Gmet_0854
radical SAM domain iron-sulfur cluster-binding		4.95338	Gmet_0423

oxidoreductase				
outer membrane protein assembly				
lipoprotein YfiO, putative	yfiO	4.95281	Gmet_3014	
hypothetical protein		4.95243	Gmet_0914	
methionyl-tRNA synthetase	metG	4.95225	Gmet_2321	
CDP-diacylglycerol--serine O-				
phosphatidyltransferase	pssA	4.95172	Gmet_1264	
sensor histidine kinase, PAS and PAS domain-containing		4.94965	Gmet_0666	
hypothetical protein		4.94849	Gmet_3591	
hypothetical protein		4.94849	Gmet_3623	
3-deoxy-D-arabino-heptulosonate 7-				
phosphate synthase	aroG-1	4.945	Gmet_0024	
dihydridopicolinate synthase	dapA	4.94393	Gmet_0211	
ABC transporter, ATP-binding protein		4.9421	Gmet_2545	
TPR domain lipoprotein		4.94208	Gmet_2032	
metal-dependent hydrolase, beta-lactamase superfamily		4.94098	Gmet_1944	
malate oxidoreductase, NADP-dependent,				
phosphate acetyltransferase-like domain-containing	maeB	4.93759	Gmet_1637	
hypothetical protein		4.93538	Gmet_2380	
protein phosphoaspartate phosphatase				
CheX associated with MCPs of classes 40H				
and 40+24H	cheX64H	4.93275	Gmet_3118	
hypothetical protein		4.93081	Gmet_2467	
phosphoglucomutase/phosphomannomutase family protein		4.93033	Gmet_0990	
sensor diguanylate cyclase/phosphodiesterase, GAF domain-containing		4.92651	Gmet_0957	
hypothetical protein		4.92424	Gmet_0424	
nickel-binding domain transcriptional regulator	nikR	4.92424	Gmet_0494	
cytochrome c		4.92424	Gmet_0601	
undecaprenyl-diphospho-oligosaccharide flippase		4.92424	Gmet_2888	
quinolinate synthetase complex, subunit A	nadA	4.92424	Gmet_3544	
phosphoenolpyruvate carboxykinase, ATP-dependent		4.92152	Gmet_3169	
ADP-heptose--lipopolysaccharide heptosyltransferase		4.92034	Gmet_2881	
chorismate mutase and prephenate dehydratase	pheA	4.92018	Gmet_0862	
outer membrane channel, putative		4.92012	Gmet_1745	
helix-turn-helix transcriptional regulator, IclR family		4.91859	Gmet_0741	
imidazoleglycerol-phosphate synthase, glutamine amidotransferase subunit	hisH	4.91738	Gmet_0387	
hypothetical protein		4.91432	Gmet_2775	
flagellar basal body rod protein FlgG	flgG	4.90769	Gmet_0431	
cytochrome c		4.90377	Gmet_1544	
flagellar biogenesis protein FlhA	flhA	4.90333	Gmet_0426	
hypothetical protein		4.90103	Gmet_0969	

cyclic diguanylate phosphodiesterase		4.89952	Gmet_2417
hypothetical protein		4.89321	Gmet_0138
arabinose-5-phosphate isomerase	kdsD	4.89253	Gmet_1278
hypothetical protein		4.89132	Gmet_1916
hypothetical protein		4.88968	Gmet_2894
membrane protein, putative		4.88861	Gmet_1367
pyruvate carboxylase	pyc	4.88736	Gmet_0816
glutaminyl-tRNA synthetase	glnS	4.88731	Gmet_0058
ATP-dependent chaperone ClpB	clpB	4.88193	Gmet_2851
protein of unknown function DUF150		4.87843	Gmet_1583
anti-sigma factor, protein serine/threonine kinase	rsbW	4.87361	Gmet_1228
efflux pump, RND family, outer membrane protein		4.87271	Gmet_2517
membrane protein, putative		4.87153	Gmet_0515
methylmalonyl-CoA epimerase	mceE	4.86979	Gmet_3253
radical SAM domain iron-sulfur cluster-binding oxidoreductase		4.86679	Gmet_0566
peptidase, S49 family		4.86574	Gmet_1750
protein of unknown function UPF0054		4.86574	Gmet_2370
flagellar protein FlaG	flaG	4.86534	Gmet_0463
magnesium transport protein CorA	corA-2	4.86402	Gmet_0134
orotidine-5'-phosphate decarboxylase	pyrF	4.86284	Gmet_1355
prolipoprotein diacylglycerol transferase	lgt	4.8566	Gmet_1227
ResB-like family cytochrome c		4.85385	Gmet_0572
hypothetical protein		4.85385	Gmet_2033
protein disulfide bond isomerase, DsbC/DsbG-like protein		4.8525	Gmet_1150
lipoprotein cytochrome c	omcN	4.85034	Gmet_0581
ligand-gated TonB-dependent outer membrane channel		4.84988	Gmet_1245
sensor histidine kinase PilS, PAS domain-containing	pilS	4.84857	Gmet_1396
heat shock protein Hsp90	htpG	4.84217	Gmet_2498
hypothetical protein		4.84178	Gmet_0569
membrane protein, TerC family		4.84075	Gmet_1782
LysM domain protein		4.84017	Gmet_0860
ABC transporter, ATP-binding protein		4.84017	Gmet_1899
SpoU-class rRNA methyltransferase CspR		4.84017	Gmet_2379
helix-turn-helix domain protein		4.83966	Gmet_2681
scaffold protein CheW associated with MCPs of class 40H	cheW40H-1	4.83715	Gmet_2309
lipopolysaccharide ABC transporter, periplasmic protein LptA	lptA	4.83677	Gmet_1281
RNA exonuclease, beta-lactamase fold protein		4.8362	Gmet_1343
twitching motility pilus retraction ATPase	pilT-1	4.83608	Gmet_0199
endoribonuclease Y	rny	4.83574	Gmet_1180
cyclic diguanylate phosphodiesterase		4.83564	Gmet_2714
lipoyl carrier protein LarG	larG	4.83474	Gmet_0985

TIM barrel oxidoreductase NifR3	nifR3	4.83261	Gmet_2561
membrane transglycosylase and transpeptidase PBP1A		4.83186	Gmet_1671
response receiver sensor histidine kinase response			
regulator, PAS domain-containing		4.83039	Gmet_1918
GTP cyclohydrolase I	folE	4.82745	Gmet_3074
glutamate-1-semialdehyde 2,1-			
aminomutase	hemL	4.82663	Gmet_3356
CheR-related putative SAM-binding domain protein		4.82583	Gmet_3271
sigma-54-dependent transcriptional response regulator		4.8247	Gmet_2034
translation initiation factor IF-2	infB	4.82295	Gmet_1586
3-oxoacyl-(acyl carrier protein) reductase	fabG-2	4.82136	Gmet_1601
hypothetical protein		4.81844	Gmet_0859
phenylalanyl-tRNA synthetase, beta subunit	pheT	4.81788	Gmet_1416
protein glutamate methyltransferase CheR			
associated with MCPs of class 40H, TPR			
domain-containing	cheR40H-2	4.81776	Gmet_2707
NAD-dependent protein deacetylase, Sir2			
family	srtN	4.81732	Gmet_0397
hypothetical protein		4.81732	Gmet_A3642
phosphate acetyltransferase	pta	4.81666	Gmet_1035
protein of unknown function DUF151		4.81666	Gmet_2295
tungstate ABC transporter, ATP-binding			
protein	tupC	4.81553	Gmet_1039
cobalt-precorrin-4 C11-methyltransferase	cbiF	4.81432	Gmet_0483
response receiver-modulated diguanylate cyclase		4.80876	Gmet_1706
NADPH-dependent glutamate synthase, glutamine			
amidotransferase subunit		4.8078	Gmet_1753
redox-active disulfide protein 2		4.80559	Gmet_0518
(R)-2-hydroxyacyl-CoA dehydratase		4.80433	Gmet_0545
hypothetical protein		4.80433	Gmet_A3571
hydrogenase expression/formation protein			
HypE	hypE	4.80376	Gmet_0116
zinc-dependent peptidase, M16 family		4.80215	Gmet_1592
sigma-54-dependent transcriptional response regulator		4.79928	Gmet_0555
carbamyl-phosphate synthase, large			
subunit, glutamine-dependent	carB-1	4.79604	Gmet_1774
cobalt ABC transporter, membrane protein			
CbiM	cbiM	4.7955	Gmet_0472
ABC transporter, ATP-binding protein		4.78673	Gmet_3037
aspartate/glutamate/phosphoserine/alanine/cysteate			
aminotransferase, putative		4.78472	Gmet_3173
thiamin biosynthesis thiocarboxylate			
synthase	thiF-2	4.78406	Gmet_1568
sigma-54-dependent transcriptional response regulator		4.78361	Gmet_3158
glutamate--ammonia ligase			
adenylyltransferase	glnE	4.78334	Gmet_0071
nucleotidyltransferase-related protein		4.78188	Gmet_1316

protein phosphoaspartate phosphatase				
CheX	cheX-4	4.77668	Gmet_1606	
methylthioadenosine phosphorylase	mtaP	4.77668	Gmet_2684	
response receiver CheY associated with MCPs of class 40H	cheY40H-1	4.77486	Gmet_2312	
futalosine hydrolase, putative	mqnB	4.77486	Gmet_3381	
3-deoxy-D-manno-octulosonate-8-phosphate phosphatase	kdsC	4.7741	Gmet_1279	
manganese/nickel-dependent phosphodiesterase, YfcE family		4.77323	Gmet_1749	
scaffold protein CheW associated with MCPs of classes 40H and 40+24H	mvhQ	4.76935	Gmet_3317	
divalent manganese/zinc ABC transporter, ATP-binding protein		4.7641	Gmet_0492	
acyl-(acyl carrier protein)--UDP-N-acetylglucosamine/UDP-2-N-acetylglucose-2, 3-diamine 3-O/N-acyltransferase	lpxA-1	4.7641	Gmet_2353	
hypothetical protein		4.76377	Gmet_2798	
transcriptional repressor of ribonucleotide reductase, NrdR, zinc ribbon and ATP-cone domain-containing	nrdR	4.76265	Gmet_1623	
type II secretion system protein GspC, putative serine protease	gspC	4.76173	Gmet_3363	
glutamine--fructose-6-phosphate aminotransferase	glmS-1	4.76168	Gmet_0104	
anti-anti-sigma factor	rsbV	4.76074	Gmet_1229	
HAD superfamily hydrolase		4.76074	Gmet_2290	
GDP-mannose--undecaprenyl-phosphate mannosyltransferase		4.75723	Gmet_1870	
trans-isoprenyl diphosphate synthase		4.75492	Gmet_1935	
cytochrome c		4.75431	Gmet_0733	
hypothetical protein		4.75431	Gmet_2605	
ABC transporter, periplasmic substrate-binding protein		4.75008	Gmet_1244	
sensor histidine kinase, HAMP domain-containing, 2 heme-binding sites		4.74898	Gmet_2923	
type VI secretion system protein TssK	tssK	4.74574	Gmet_3311	
hypothetical protein		4.74367	Gmet_1834	
FlgM family protein		4.74367	Gmet_2286	
hypothetical protein		4.74367	Gmet_2672	
resolvase-like serine recombinase		4.74367	Gmet_3142	
diguanylate cyclase		4.74027	Gmet_0049	
type II secretion system protein Pulo, putative	pulo	4.73837	Gmet_1861	
nitrogen fixation master sensor histidine kinase, PAS domain-containing	gnfL	4.73837	Gmet_2562	
metal ion efflux pump, RND family, inner membrane protein		4.7312	Gmet_1547	

5-methyltetrahydrofolate--homocysteine S-methyltransferase and 5,10-methylenetetrahydrofolate reductase	metF-2	4.73091	Gmet_0504
acetyltransferase, putative		4.72744	Gmet_2096
protein of unknown function DUF296		4.72493	Gmet_0490
anthranilate synthase, glutamine amidotransferase subunit	trpG	4.7207	Gmet_2496
winged helix-turn-helix benzoyl-CoA degradation transcriptional repressor BgeR	bgeR	4.7201	Gmet_2097
iron-sulfur cluster-binding oxidoreductase		4.71869	Gmet_0761
sensor histidine kinase, PAS domain-containing		4.71865	Gmet_0713
periplasmic carboxy-terminal processing protease	ctpA-2	4.71854	Gmet_1853
lysine--8-amino-7-oxononanoate aminotransferase	bioA	4.71706	Gmet_1580
sensor histidine kinase, CHASE domain-containing radical SAM domain iron-sulfur cluster-binding oxidoreductase		4.71486	Gmet_2460
23S rRNA (2-methyl-A2503)-methyltransferase	rImN	4.71426	Gmet_2316
SEC-C motif domain protein		4.71426	Gmet_2685
type II secretion system pseudopilin PulG	pulG	4.71367	Gmet_0722
protein of unknown function DUF480		4.71367	Gmet_1858
sensor histidine kinase CheA associated with MCPs of classes 40H and 40+24H	cheA64H	4.71273	Gmet_0262
sodium/proton antiporter family protein		4.71248	Gmet_3266
hypothetical protein		4.70936	Gmet_1089
sensor histidine kinase, HAMP domain-containing, putative heme-binding site		4.70775	Gmet_1656
arginyl-tRNA synthetase	argS	4.70665	Gmet_0554
selenide, water dikinase, selenocysteine-containing	selD	4.70606	Gmet_1434
RNA polymerase sigma-38 factor, stationary phase	rpoS	4.70254	Gmet_2907
DoxX family protein		4.70037	Gmet_1421
outer membrane surface lipoprotein		4.7002	Gmet_0190
hypothetical protein, nonconserved putative heme-binding site		4.69895	Gmet_3162
carboxynorspermidine/carboxyspermidine dehydrogenase		4.69887	Gmet_1048
anthranilate synthase, catalytic subunit	trpE	4.697	Gmet_0902
stationary phase survival protein, YicC family, YicC_N and DUF1732 domain-containing		4.69597	Gmet_2497
hypothetical protein	yicC	4.69527	Gmet_2328
type IV pilus minor pilin PilW	pilW-1	4.69437	Gmet_3506
molybdate ABC transporter, ATP-binding	modC	4.69418	Gmet_0735
		4.69362	Gmet_0514

protein				
dystroglycan-type cadherin-like domain repeat protein		4.69206	Gmet_0933	
transcriptional regulator with cupin-like beta-barrel				
domain, putative		4.69158	Gmet_3247	
glycoside hydrolase, family 57		4.69035	Gmet_3177	
efflux pump, RND family, outer membrane protein		4.68977	Gmet_1650	
scaffold protein CheW associated with	cheW40H-			
MCPs of class 40H	2	4.6872	Gmet_2307	
scaffold protein CheW associated with				
MCPs of class 34H	cheW34H	4.6872	Gmet_2421	
diguanylate cyclase		4.68545	Gmet_2425	
glycosyltransferase		4.68497	Gmet_1334	
sensor histidine kinase, HAMP and PAS domain-containing		4.68399	Gmet_1945	
iron-sulfur cluster-binding oxidoreductase		4.68031	Gmet_2912	
toxin, HicA family		4.67982	Gmet_1322	
flagellar basal body P-ring formation				
protein FlgA	flgA	4.67935	Gmet_0432	
Smr domain protein		4.67891	Gmet_2552	
phosphocarrier protein HPr	ptsH	4.67732	Gmet_1288	
cytochrome c		4.67542	Gmet_3174	
outer membrane protein, putative		4.67542	Gmet_3522	
tRNA (5-methyl-U54)-methylenetransferase/reductase	trmFO	4.67112	Gmet_0893	
cobalt-precorrin-5A hydrolase	cbiG	4.66938	Gmet_0484	
type IV pilus assembly protein PilY1	pilY1-1	4.66701	Gmet_0737	
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-19	4.66385	Gmet_0529	
glycosyltransferase, putative		4.6612	Gmet_1331	
aspartate carbamyltransferase	pyrB	4.6612	Gmet_1769	
thiamin monophosphate kinase	thiL	4.6612	Gmet_3213	
selenocysteine-specific translation elongation factor	selB	4.65894	Gmet_3415	
magnesium-dependent deoxyribonuclease, TatD family, and radical SAM domain iron-sulfur oxidoreductase		4.65808	Gmet_2464	
lipoprotein, putative		4.6561	Gmet_1511	
hypothetical protein		4.65604	Gmet_1341	
glutamate racemase	murl	4.65587	Gmet_0547	
winged-helix transcriptional response regulator		4.6552	Gmet_1291	
outer membrane channel, putative		4.65425	Gmet_0532	
amino acid aminotransferase, putative		4.65382	Gmet_3433	
protein of unknown function DUF185		4.65371	Gmet_3084	
23S rRNA pseudouridines 1911, 1915, 1917 synthase	rldU	4.65216	Gmet_3435	
ribonucleoside diphosphate reductase, adenosylcobalamin-dependent	nrdJ	4.65146	Gmet_1297	
peptidase lipoprotein, M48 family		4.65031	Gmet_1238	

alanyl-tRNA synthetase	alaS	4.64964	Gmet_0201
glycosyltransferase		4.64713	Gmet_1327
serine protease, subtilase family		4.64641	Gmet_0751
flagellar basal body rod protein FlgF	flgF	4.64328	Gmet_0430
metal-dependent hydrolase, beta-lactamase superfamily			
lipoprotein		4.64171	Gmet_1507
S-methyl-5-thio-alpha-D-ribose-1-phosphate isomerase	mtnA	4.64026	Gmet_0072
hypothetical protein		4.63567	Gmet_3318
crossover junction endodeoxyribonuclease RuvC	ruvC	4.63473	Gmet_0744
PSP1 superfamily protein		4.63197	Gmet_2320
Rossmann fold nucleotide-binding protein		4.63146	Gmet_1267
type II secretion system ATPase GspE	gspE	4.63042	Gmet_3365
hypothetical protein		4.62878	Gmet_0343
glycogen synthase	glgA-2	4.62811	Gmet_3175
acyl carrier protein	acpP-1	4.62726	Gmet_1689
hypothetical protein		4.62726	Gmet_2874
SAM-dependent methyltransferase		4.62397	Gmet_2572
aldehyde:ferredoxin oxidoreductase, tungsten-containing		4.62373	Gmet_2289
sensor histidine kinase, NtrB-related protein		4.62307	Gmet_2035
membrane protein YqaA	yqaA	4.62167	Gmet_0345
cob(II)yrinate a,c-diamide synthase	cbiA	4.62012	Gmet_0470
hypothetical protein		4.61938	Gmet_0533
hypothetical protein		4.61681	Gmet_0218
hypothetical protein		4.6139	Gmet_2966
carbon monoxide dehydrogenase, catalytic subunit	cooS	4.61304	Gmet_1902
L,L-diaminopimelate aminotransferase	dapL	4.60757	Gmet_0213
hypothetical protein		4.60676	Gmet_0110
transcription elongation factor GreB	greB	4.60676	Gmet_1103
thymidylate kinase, putative	tmk-2	4.60571	Gmet_3250
type II secretion system minor pseudopilin GspJ	gspJ	4.60571	Gmet_3370
type II secretion system protein GspN, putative	gspN	4.60359	Gmet_3374
pyruvate kinase	pyk	4.60306	Gmet_0122
sensor histidine kinase cyclic nucleotide phosphodiesterase, GAF, GAF and HD-GYP-related domain-containing		4.60279	Gmet_1991
hypothetical protein		4.60231	Gmet_0368
membrane protein, putative		4.60231	Gmet_2456
tRNA (5-carboxymethylaminomethyl-2-thio-U34)-thioltransferase	mnmA	4.60133	Gmet_0873
GTPase, HflX subfamily		4.60037	Gmet_2557
heterodisulfide oxidoreductase, iron-sulfur cluster-binding subunit G	hdrG	4.60017	Gmet_3427

ATPase, AAA family		4.59774	Gmet_1336
ribonuclease PH	rph	4.59323	Gmet_1876
glycosyltransferase and SAM-dependent methyltransferase, putative		4.59317	Gmet_0456
protein of unknown function DUF343		4.59081	Gmet_2346
helix-turn-helix transcriptional regulator, XRE family		4.59081	Gmet_2491
UDP-glucuronate 4-dehydrogenase, decarboxylating	arnA	4.58873	Gmet_0883
DNA polymerase III, delta subunit	holA	4.58607	Gmet_2298
NADH dehydrogenase I, I subunit	nuol-2	4.58592	Gmet_0163
hypothetical protein		4.58592	Gmet_3607
tryptophanyl-tRNA synthetase	trpS	4.58466	Gmet_1960
3-dehydroquinate synthase	aroB	4.5832	Gmet_0978
protein glutamate methylesterase CheB associated with MCPs of class 40H, response receiver domain-containing glyceraldehyde-3-phosphate dehydrogenase, type I	cheB40H-1	4.5832	Gmet_2304
ABC transporter, ATP-binding protein	gapB	4.5812	Gmet_1211
indole-3-glycerol-phosphate synthase	trpC	4.58103	Gmet_1552
response regulator, putative		4.57779	Gmet_2494
5-methyltetrahydrofolate--homocysteine S-methyltransferase, cobalamin-dependent ankyrin repeat protein	metH	4.57631	Gmet_3414
metal ion efflux pump, RND family, membrane fusion protein		4.5706	Gmet_0549
acyl-CoA carboxylase, biotin carboxyl carrier protein	accB	4.5706	Gmet_0582
phenylacetate--coenzyme A ligase	paaK-2	4.56871	Gmet_1548
tyrosyl-tRNA synthetase	tyrS	4.56809	Gmet_0983
glycosyltransferase		4.56544	Gmet_1825
nuclease, putative		4.56523	Gmet_1182
biopolymer transport periplasmic beta-propeller repeat protein, TolB-related protein		4.56516	Gmet_1328
McbC-like oxidoreductase for polypeptide thioester cyclization		4.56499	Gmet_2377
flagellar basal body rod protein FlgC	flgC	4.56406	Gmet_3540
lipoprotein, putative		4.56094	Gmet_0818
LysM domain protein		4.56027	Gmet_3114
dehypoxanthylfutalosine cyclase, putative	mqnC-2	4.56002	Gmet_0210
sensor histidine kinase, PAS and GAF domain-containing GTPase EngA	engA	4.55839	Gmet_3225
methyl-accepting chemotaxis sensory transducer, class 40+24H	mcp64H-1	4.55767	Gmet_3391
recombination regulator RecX	recX	4.55382	Gmet_0197
3-deoxy-D-manno-octulosonate-8-phosphate synthase	kdsA	4.55227	Gmet_2314
		4.547	Gmet_2938
		4.54573	Gmet_0200
		4.54573	Gmet_1277

toxin, PIN family		4.54573	Gmet_3076
hypothetical protein		4.54439	Gmet_1173
cyclic diguanylate phosphodiesterase, DUF3365 and HAMP domain-containing, heme-binding		4.54273	Gmet_0018
PilB/Pule/GspE family ATPase		4.54172	Gmet_3401
pyranopterin triphosphate synthase	moaA-1	4.53688	Gmet_0301
membrane-bound zinc-dependent protease			
HtpX	htpX	4.53567	Gmet_1156
periplasmic solute-binding protein		4.53288	Gmet_0781
carbamyl-phosphate synthase, small subunit	carA	4.52831	Gmet_1771
protein of unknown function DUF342		4.52581	Gmet_3025
PATAN domain protein		4.52279	Gmet_1366
hypothetical protein		4.5218	Gmet_0050
Ech-hydrogenase-related complex, NuoL-like integral membrane subunit	ehrA-1	4.52152	Gmet_2601
iron-sulfur-oxygen hybrid cluster protein (prismane)	hcp	4.51792	Gmet_2834
peptide ABC transporter, membrane protein		4.51761	Gmet_1236
chromosomal replication initiator protein DnaA	dnaA	4.51665	Gmet_0001
membrane protein, UPF0126 and UPF0126 domain-containing		4.51386	Gmet_0254
diguanylate cyclase		4.51386	Gmet_0840
phospholipase, patatin family, putative		4.51256	Gmet_0115
protease, Abi superfamily, putative		4.5111	Gmet_2036
acyl carrier protein	acpP-4	4.5092	Gmet_2339
16S rRNA (5-methyl-C967)-methyltransferase	rsmB	4.50812	Gmet_0066
type VI secretion system inner membrane protein TssL	tssL	4.50708	Gmet_0273
chorismate synthase	aroC	4.50676	Gmet_0976
polysaccharide deacetylase and DUF3473 domain protein		4.50569	Gmet_1685
imidazoleglycerol-phosphate synthase, cyclase subunit	hisF	4.50541	Gmet_0389
preprotein translocase, YajC subunit	yajC	4.5047	Gmet_0853
carboxythiazole phosphate tautomerase	tenI	4.5047	Gmet_2935
asparagine synthetase	asnB-2	4.50113	Gmet_2024
hypothetical protein		4.50074	Gmet_2968
antitoxin, XRE family		4.49893	Gmet_2961
NADPH-dependent enal/enone/nitroreductase, Oye family	namA	4.49835	Gmet_2577
4-amino-5-hydroxymethyl-2-methylpyrimidine- phosphate synthase	thiC-1	4.49704	Gmet_2910
flagellar basal body-associated protein FliL	fliL	4.49539	Gmet_3101
flagellar hook-associated protein FlgK	flgK	4.49505	Gmet_0438
hydrogenase maturation protein HypF	hypF	4.49459	Gmet_0119

folylpolyglutamate synthetase	folC	4.49213	Gmet_2475
NrdH-like redox lipoprotein		4.49128	Gmet_2919
GTP/GDP 3'-pyrophosphokinase and (p)ppGpp 3'-pyrophosphohydrolase	relA	4.48826	Gmet_2325
protein of unknown function DUF2721		4.48717	Gmet_0709
acetylornithine aminotransferase	argD	4.48495	Gmet_0204
2-amino-4-hydroxy-6-hydroxymethylidihydropteridine pyrophosphokinase	folK	4.4824	Gmet_0495
transposase, IS110 family		4.4815	Gmet_2794
cytochrome c/b	cbcY	4.48016	Gmet_0100
lipoprotein, putative		4.479	Gmet_3394
thymidylate kinase	tmk-1	4.47798	Gmet_2318
molybdopterin biosynthesis sulfur carrier protein	moaD	4.47678	Gmet_1044
UroD-like decarboxylase/methyltransferase, putative		4.47639	Gmet_2750
sensor histidine kinase, HAMP and PAS domain-containing		4.47609	Gmet_0009
acyl-CoA synthetase, AMP-forming		4.47488	Gmet_2692
flagellar hook capping protein FlgD	flgD	4.47138	Gmet_3105
protein glutamate methyltransferase CheR associated with MCPs of class 44H	cheR44H	4.47123	Gmet_3212
response regulator		4.47006	Gmet_1551
type VI secretion system needle hub protein TssE	tssE	4.47006	Gmet_3312
germane superfamily lipoprotein, putative		4.46719	Gmet_1545
twitching motility pilus retraction ATPase	pilT-2	4.46683	Gmet_0260
hypothetical protein		4.46481	Gmet_0943
1-deoxy-D-xylulose-5-phosphate reductoisomerase	dxr	4.46481	Gmet_1256
polyphosphate kinase	ppk	4.46431	Gmet_0133
protease, S2P-M50-like family 1		4.46401	Gmet_1961
peroxiredoxin, atypical 2-Cys subfamily	prx-3	4.46376	Gmet_0183
hypothetical protein		4.46326	Gmet_2335
protein glutamate methylesterase CheB associated with MCPs of classes 40H and 40+24H, response receiver domain-containing	cheB64H-1	4.46279	Gmet_3269
type II secretion system ATPase PulM, putative	pulM	4.46189	Gmet_1863
type II secretion system minor pseudopilin Gspl	gspl	4.46189	Gmet_3369
cell division ABC transporter, membrane protein FtsX, putative	ftsX	4.46139	Gmet_1855
sigma-54-dependent transcriptional response regulator		4.46084	Gmet_0776
thiamin biosynthesis thiocarboxylate synthase	thiF-1	4.45609	Gmet_2855

hypothetical protein		4.45217	Gmet_2965
(R)-2-hydroxyacyl-CoA dehydratase-radicalizing ATPase		4.4497	Gmet_0544
16S rRNA (3-methyl-U1498)-			
methyltransferase	rsmE	4.4497	Gmet_3387
molybdate ABC transporter, periplasmic			
molybdate-binding protein	modA	4.43881	Gmet_0512
thioredoxin family protein	trx-2	4.43881	Gmet_0517
protein of unknown function, DUF297-containing		4.43724	Gmet_1962
cytochrome c		4.43549	Gmet_0580
UDP-galacturonate 4-epimerase	uge	4.43452	Gmet_2330
ABC transporter, periplasmic substrate-binding			
lipoprotein		4.43403	Gmet_0568
dTDP-4-dehydrorhamnose reductase	rmlD	4.43367	Gmet_2472
deoxycytidylate deaminase		4.42947	Gmet_1622
hypothetical protein		4.42741	Gmet_1466
2-oxoacid:ferredoxin oxidoreductase, alpha			
subunit	vorA	4.4265	Gmet_1307
DnaJ domain protein		4.42174	Gmet_0112
acetyl-CoA carboxylase, biotin carboxylase			
component	accC	4.41931	Gmet_0984
acyl-(acyl carrier protein)--UDP-N-			
acetylglucosamine/UDP-2-N-acetylglucose-			
2, 3-diamine 3-O/N-acyltransferase	lpxA-2	4.41728	Gmet_2567
cobalt-sirohydrochlorin C20-			
methyltransferase	cbiL	4.41404	Gmet_0482
toxin, RelE family		4.41328	Gmet_0314
phosphonoacetate hydrolase	phnA	4.41328	Gmet_0801
hypothetical protein		4.41159	Gmet_2969
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		4.41098	Gmet_1772
ammonium transporter, putative		4.41017	Gmet_1738
glycosyltransferase, putative		4.40822	Gmet_2336
ATP-binding protein YjeF	yjeF	4.40766	Gmet_1883
sulfite reductase, assimilatory		4.40595	Gmet_3222
polysaccharide deacetylase domain protein		4.40577	Gmet_0897
aspartyl/glutamyl-tRNA(Asn/Gln)			
amidotransferase, B subunit	gatB	4.40536	Gmet_0073
transposase of ISGme7, IS3 family, OrfA		4.40486	Gmet_1184
N-acetylmuramyl-L-alanine amidase		4.40089	Gmet_1425
thioredoxin family protein, selenocysteine-			
containing	trx-3	4.40008	Gmet_0151
site-specific recombinase XerC	xerC	4.39915	Gmet_3042
hypothetical protein		4.39817	Gmet_2668
lipoprotein, putative		4.3965	Gmet_0791
ABC transporter, ATP-binding protein		4.3894	Gmet_1403
helix-turn-helix and zinc ribbon transcriptional regulator		4.38818	Gmet_0240
DNA methyltransferase, putative		4.38436	Gmet_1760

periplasmically oriented, membrane-bound				
[NiFe]-hydrogenase, large subunit	hyal	4.38436	Gmet_3331	
GspIIEN domain protein		4.38332	Gmet_0111	
hypothetical protein		4.38305	Gmet_0686	
zinc finger transcriptional regulator, TraR/DksA family		4.38267	Gmet_1007	
indolepyruvate:ferredoxin oxidoreductase, beta subunit	iorB-2	4.38223	Gmet_0949	
hypothetical protein		4.37992	Gmet_1237	
hypothetical protein		4.37515	Gmet_3019	
peptidoglycan L,D-transpeptidase lipoprotein, YkuD family, SPOR domain-containing		4.37498	Gmet_3485	
adenylosuccinate lyase	purB	4.37392	Gmet_1943	
membrane protein, putative		4.37363	Gmet_2893	
protoporphyrinogen oxidase	hemG	4.3717	Gmet_2953	
peptidylprolyl cis-trans isomerase, putative		4.36897	Gmet_0917	
response receiver sensor histidine kinase		4.36806	Gmet_2639	
ATP-dependent Lon protease (La)	lon-3	4.36702	Gmet_3214	
dTDP-3-amino-3,6-dideoxy-D-galactose N-acetyltransferase and dTDP-6-deoxy-D-hex-4-ulose isomerase	fdtC/fdtA	4.36236	Gmet_1324	
23S rRNA (2'-O-methyl-G2251)-methyltransferase	rImB	4.36209	Gmet_1356	
RES domain protein		4.36116	Gmet_1661	
glycosyltransferase, putative		4.35992	Gmet_1329	
chromate transport protein ChrA, subunit 1, putative		4.35864	Gmet_2732	
ATP-dependent RNA helicase RhIE	rhIE-2	4.35672	Gmet_2573	
phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase	hisA	4.35392	Gmet_0388	
deoxyuridine-5'-triphosphate pyrophosphohydrolase	dut	4.34893	Gmet_1593	
FtsK/SpoIIIE domain protein		4.34684	Gmet_0367	
hypothetical protein		4.34669	Gmet_0208	
periplasmic polysaccharide biosynthesis/export protein		4.34435	Gmet_1344	
efflux pump, RND family, membrane fusion protein		4.34284	Gmet_3038	
type II secretion system inner membrane protein GspF	gspF	4.34284	Gmet_3366	
antitoxin, Phd family		4.33928	Gmet_0220	
CBS domain pair-containing protein		4.33928	Gmet_1882	
biotin-dependent acyl-CoA carboxylase, biotin carboxylase subunit		4.33928	Gmet_3249	
branched-chain amino acid ABC transporter, ATP-binding protein	livF	4.33636	Gmet_1819	
PilZ domain protein		4.33618	Gmet_0191	
protein of unknown function DUF2400		4.33422	Gmet_3009	
protein of unknown function DUF1015		4.33404	Gmet_2364	
phosphoglycerate kinase	pgk	4.33384	Gmet_1947	

metallophosphoesterase, putative		4.32651	Gmet_0841
ABC transporter, ATP-binding protein, duplicated domain protein		4.32634	Gmet_1926
excinuclease ABC, B subunit	uvrB	4.32622	Gmet_3219
2, 5-diamino-6-(5'-phosphoribosylamino)-4-(3H)-pyrimidinone deaminase and 5-amino-6-(5'-phosphoribosylamino)uracil reductase	ribD	4.3256	Gmet_1624
flotillin band_7_stomatin-like domain protein		4.3224	Gmet_0814
periplasmic divalent manganese/zinc-binding lipoprotein	acdA	4.32107	Gmet_0491
7-carboxy-7-deazaguanine synthase	queE	4.31902	Gmet_1658
RNA pseudouridine synthase, RluA family		4.31725	Gmet_2838
HPr(Ser) kinase/phosphatase	hprK	4.31656	Gmet_1285
metal ion efflux pump, RND family, outer membrane protein		4.31543	Gmet_1549
pppGpp 5'-phosphohydrolase and exopolyphosphatase, putative hypothetical protein	gppA-1	4.31543	Gmet_1828
sensor histidine kinase response regulator, Cache_1, HAMP, PAS, PAS, PAS and PAS domain-containing phasin superfamily protein		4.31255	Gmet_3477
membrane protein, putative		4.31205	Gmet_0759
biotin-dependent acyl-CoA carboxylase, carboxyltransferase subunit		4.31071	Gmet_1781
peptidase, M1 superfamily, putative		4.30757	Gmet_3248
O-acetyl-L-homoserine sulfhydrylase	metY-3	4.30548	Gmet_0348
type II secretion system minor pseudopilin GspK	gspK	4.30409	Gmet_1566
flagellin-stabilizing protein FliW	fliW	4.30275	Gmet_3371
hypothetical protein		4.30131	Gmet_0441
3'-to-5' exonuclease YhaM	yhaM	4.30131	Gmet_1974
hypothetical protein		4.29715	Gmet_2675
phage tail protein, putative		4.29621	Gmet_0365
hydrolase, putative, cyclic phosphodiesterase-like domain-containing		4.29482	Gmet_1129
Ech-hydrogenase-related complex, NuoH-like integral membrane subunit	ehrB-2	4.28839	Gmet_2946
tRNA (N6-threonylcarbamyl-A37) modification enzyme	ygjD	4.28839	Gmet_0374
heavy metal transport/detoxification domain protein		4.28774	Gmet_1303
peptide ABC transporter, membrane protein		4.28681	Gmet_1555
histidinol-phosphate aminotransferase	hisC	4.28534	Gmet_1235
LemA family lipoprotein		4.28269	Gmet_0385
pantetheine-phosphate adenylyltransferase	coaD	4.28269	Gmet_1371
hypothetical protein		4.28093	Gmet_1759
dihydroorotate dehydrogenase	pyrD	4.28038	Gmet_2579
polypropenyl-phospho-glycoside--protein O-		4.27418	Gmet_1841
		4.27382	Gmet_1391

glycosyltransferase DUF2723 membrane protein, putative				
hydrolase or acyltransferase, alpha/beta fold family		4.27293	Gmet_0263	
glycosyltransferase, putative		4.27216	Gmet_1332	
radical SAM domain iron-sulfur cluster-binding oxidoreductase		4.27179	Gmet_0418	
periplasmic energy transduction protein, TonB-related protein		4.26889	Gmet_3539	
glycine cleavage system P protein, subunit 1 gcvP1		4.26848	Gmet_3153	
cyclic diguanylate phosphodiesterase		4.26848	Gmet_3275	
hypothetical protein		4.26797	Gmet_3441	
hypothetical protein		4.2678	Gmet_1968	
undecaprenyl-phosphate glycosyltransferase, putative iron/zinc/nickel/cobalt/cadmium efflux protein	fieF	4.26562	Gmet_1686	
ABC transporter, membrane protein		4.26527	Gmet_0858	
2-C-methyl-D-erythritol 2,4- cyclodiphosphate synthase	ispF	4.26469	Gmet_1553	
ABC transporter, membrane protein		4.26431	Gmet_0059	
protein glutamate methyltransferase CheB associated with MCPs of class 34H,		4.26317	Gmet_1900	
response receiver domain-containing type II secretion system protein GspM, putative	cheB34H	4.26229	Gmet_2418	
hypothetical protein		4.26193	Gmet_3373	
translation elongation factor G		4.26127	Gmet_1437	
pyruvate phosphate dikinase	fusA-1	4.25851	Gmet_1985	
membrane protein, putative	ppdK	4.25748	Gmet_2940	
UDP-glucose--galactose-1-phosphate uridylyltransferase	galT	4.25622	Gmet_1404	
orotate phosphoribosyltransferase	pyrE	4.25458	Gmet_3176	
hypothetical protein		4.25403	Gmet_1938	
hypothetical protein		4.24851	Gmet_0764	
protein of unknown function DUF329		4.24617	Gmet_0235	
response receiver CheY associated with MCPs of class 40H	cheY40H-4	4.24617	Gmet_1735	
radical SAM domain iron-sulfur cluster-binding oxidoreductase, putative		4.24617	Gmet_2302	
cytochrome c		4.24617	Gmet_2664	
carbamyl-phosphate synthase, large subunit, glutamine-dependent	carB-2	4.24414	Gmet_0600	
hypothetical protein		4.2421	Gmet_0661	
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		4.24017	Gmet_1114	
ABC transporter, ATP-binding protein		4.23658	Gmet_0609	
protein of unknown function, DUF115 and TPR domain- containing		4.23287	Gmet_0523	
		4.23236	Gmet_0447	

zinc-dependent hydrolase YcbL	ycbL	4.23236	Gmet_2674
cytochrome c	dhc2	4.23122	Gmet_0543
iron-sulfur cluster-binding protein, putative	baml	4.22627	Gmet_2079
16S rRNA (6-N',N'-dimethyl-A1518,A1519)-dimethyltransferase	rsmA	4.2251	Gmet_1304
cobalt-precorrin-6B C5,C15-methyltransferase and C12-decarboxylase	cbiET	4.22469	Gmet_0481
TPR domain protein		4.22447	Gmet_2403
acyl-phosphate--glycerol-3-phosphate acyltransferase	plsY	4.2238	Gmet_3020
rhomboid-related membrane protein		4.22323	Gmet_2506
molybdate ABC transporter, membrane protein	modB	4.22063	Gmet_0513
hypothetical protein		4.22063	Gmet_0968
protein of unknown function DUF111		4.2201	Gmet_0194
winged helix-turn-helix transcriptional regulator, MarR family		4.21797	Gmet_0359
23S rRNA (3-N-methyl-pseudoU1915)-methyltransferase, putative	rImH	4.21797	Gmet_3202
membrane protein, putative		4.21642	Gmet_0715
toxin, HicA family		4.21374	Gmet_2592
TrkA domain protein		4.213	Gmet_0063
phenylacetate--coenzyme A ligase	paaK-1	4.21254	Gmet_1818
sulfate ABC transporter, ATP-binding protein	cysA	4.21222	Gmet_1903
lipoprotein, putative		4.20891	Gmet_2743
acyl-CoA thioesterase		4.20664	Gmet_2669
sensor histidine kinase CheA associated with MCPs of class 40H	cheA40H	4.20594	Gmet_2311
NAD ⁺ synthetase	nadE	4.2031	Gmet_2862
ABC transporter, ATP-binding/membrane protein		4.19998	Gmet_3416
TPR domain lipoprotein		4.19886	Gmet_2682
CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase	pgsA-2	4.1945	Gmet_0822
DnaJ-related molecular chaperone		4.19209	Gmet_3550
ThiF family protein		4.19057	Gmet_2046
ribonuclease, Rne/Rng family		4.18965	Gmet_2546
tRNA (2-thio-C32)-thioltransferase	ttcA	4.18913	Gmet_3336
transcriptional regulator, TetR family		4.18727	Gmet_1731
hypothetical protein		4.18343	Gmet_1003
N-acylhomoserine lactone synthetase-related protein		4.18316	Gmet_2038
winged-helix transcriptional response regulator KdpE	kdpE	4.18316	Gmet_2437
SPOR domain protein		4.18008	Gmet_1435
hypothetical protein		4.18008	Gmet_3079
signal recognition particle GTPase FtsY	ftsY	4.17905	Gmet_1176
hypothetical protein		4.17622	Gmet_0719

hypothetical protein		4.17578	Gmet_0704
methyl viologen-reducing hydrogenase-associated ferredoxin	mvhF	4.17578	Gmet_3321
phosphatase/phosphohexomutase-related hydrolase		4.1745	Gmet_1348
DNA gyrase, A subunit	gyrA	4.17376	Gmet_0005
helix-turn-helix iron-sulfur cluster-binding transcriptional regulator IscR	iscR-2	4.17376	Gmet_0871
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		4.17376	Gmet_1690
sensor histidine kinase, HAMP and PAS domain-containing		4.17308	Gmet_0777
SPOR domain protein		4.17032	Gmet_1984
replicative DNA helicase	dnaB	4.165	Gmet_2568
uracil-DNA glycosylase		4.16437	Gmet_2671
GAF domain protein, putative		4.16163	Gmet_2680
ATP-dependent DNA helicase DinG	dinG	4.16128	Gmet_3167
protein of unknown function DUF2156		4.16113	Gmet_0720
DNA polymerase III, beta subunit	dnaN	4.1587	Gmet_0002
SAM-dependent methyltransferase, putative		4.1587	Gmet_0453
antitoxin, AbrB family		4.1587	Gmet_2502
sodium/solute symporter family protein	apID	4.1587	Gmet_3031
hypothetical protein		4.1587	Gmet_3322
bidirectional NAD-reducing hydrogenase, diaphorase subunit	hoxF	4.15744	Gmet_1110
8-amino-7-oxononanoate synthase	bioF	4.15502	Gmet_0842
glycogen synthase	glgA-1	4.15439	Gmet_0707
efflux pump, RND family, inner membrane protein		4.15176	Gmet_2518
hypothetical protein		4.15041	Gmet_2566
ABC transporter, periplasmic substrate-binding protein		4.1498	Gmet_1746
hypothetical protein		4.14813	Gmet_0892
methyl viologen-reducing hydrogenase, large subunit	mvhL	4.13878	Gmet_3320
cardiolipin synthase, putative	cls-1	4.13673	Gmet_3078
pyridoxal-5'-phosphate-dependent chorismate-binding enzyme, putative		4.13641	Gmet_3010
type IV pilus minor pilin PilE	pilE	4.13574	Gmet_0962
flavoredoxin		4.13574	Gmet_1443
hypothetical protein		4.13466	Gmet_0113
quinone biosynthesis kinase AarF, putative		4.13411	Gmet_0760
protein of unknown function YaeQ	yaeQ	4.13069	Gmet_1726
methionyl-tRNA formyltransferase	fmt	4.13069	Gmet_3339
hypothetical protein		4.12722	Gmet_3496
carbon starvation protein CstA	cstA-1	4.12694	Gmet_2948
hypothetical protein		4.12515	Gmet_0510
hypothetical protein		4.12515	Gmet_1808
aspartate ammonia-lyase	aspA	4.12454	Gmet_3082

protein of unknown function DUF2318		4.12147	Gmet_1554
lipopolysaccharide biogenesis outer membrane protein LptD, putative	lptD	4.12101	Gmet_2474
HNH endonuclease family protein		4.11688	Gmet_0936
protein of unknown function DUF1255		4.11688	Gmet_1778
peptidylprolyl cis-trans isomerase lipoprotein, FKBP-type hypothetical protein		4.11231	Gmet_2362
hypothetical protein		4.11231	Gmet_3624
hypothetical protein		4.10866	Gmet_3436
hypothetical protein		4.10661	Gmet_2551
hypothetical protein		4.10568	Gmet_1980
zinc-dependent amidohydrolase, putative		4.10568	Gmet_3385
type II secretion system protein GspD, putative	gspD	4.10094	Gmet_3364
acetyl-CoA carboxylase, carboxyl transferase, alpha subunit	accA	4.09868	Gmet_1216
response receiver		4.09642	Gmet_0501
(3R)-hydroxyacyl-(acyl carrier protein) dehydratase	fabZ-2	4.09522	Gmet_2354
peroxiredoxin-like 2 family protein, selenocysteine-containing		4.09486	Gmet_3516
protein of unknown function DUF2201, VWFA superfamily		4.09457	Gmet_0344
sensor protein, DUF3365, HAMP and PAS domain-containing, heme-binding		4.09377	Gmet_0023
TPR domain protein		4.09304	Gmet_1932
undecaprenyl-phosphate glycosylphosphotransferase		4.09159	Gmet_1337
DNA mismatch repair ATPase MutS-1	mutS-1	4.09104	Gmet_1424
glucose-1-phosphate thymidylyltransferase	rmlA	4.09045	Gmet_0924
protein phosphoaspartate phosphatase CheC associated with MCPs of class 44H	cheC44H	4.09025	Gmet_3210
hypothetical protein		4.08774	Gmet_0693
GDP-L-fucose synthase	fcl	4.08517	Gmet_1312
hypothetical protein		4.08355	Gmet_3326
poly-gamma-glutamate capsule biosynthesis protein, putative		4.08036	Gmet_3529
glutamine--phosphoribosylpyrophosphate amidotransferase	purF	4.07933	Gmet_1939
triosephosphate isomerase	tpi	4.07624	Gmet_1948
hypothetical protein		4.07624	Gmet_2499
PilZ domain protein		4.07624	Gmet_3439
periplasmically oriented, membrane-bound [NiFe]-hydrogenase, small subunit	hyaS	4.06863	Gmet_3332
protein glutamine deamidase and protein glutamate methylesterase CheD associated with MCPs of class 44H	cheD44H	4.06736	Gmet_3209
methyl viologen-reducing hydrogenase, small subunit	mvhS	4.06711	Gmet_3319

tRNA (5-carboxymethylaminomethyl-U34)-formylglycinetransferase/reductase	gidA	4.06698	Gmet_3559
sodium-driven efflux pump, MatE and Mate domain-containing	norM	4.06665	Gmet_0358
menaquinone biosynthesis polyprenyltransferase, putative		4.06656	Gmet_3393
molybdopterin nucleotidyltransferase and molybdopterin-guanine dinucleotide biosynthesis protein MobB		4.06456	Gmet_0300
toxin, RelE family		4.06294	Gmet_0677
[acyl]-glycerolphosphate acyltransferase		4.06294	Gmet_0934
hypothetical protein		4.06081	Gmet_0232
hypothetical protein		4.0603	Gmet_0718
homoserine dehydrogenase	hom	4.05964	Gmet_1629
type II secretion system protein GspL, putative	gspL	4.05929	Gmet_3372
inosine-5'-monophosphate dehydrogenase	guAB	4.05854	Gmet_2293
fumarylacetoacetate hydrolase family protein	ycgM	4.05634	Gmet_2937
polysaccharide chain length determinant protein		4.05455	Gmet_1346
sirohydrochlorin cobaltochelatase	cbiX	4.05352	Gmet_0476
radical SAM domain iron-sulfur cluster-binding oxidoreductase, TIGR01212 family	yhcC-2	4.05352	Gmet_2936
7-cyano-7-deazaguanine synthase	queC	4.05179	Gmet_3075
transglutaminase-like cysteine protease		4.05048	Gmet_1086
type VI secretion system ATPase and inner membrane protein TssM	tssM	4.04977	Gmet_0274
phosphoribosyl-ATP pyrophosphohydrolase	hisE	4.04977	Gmet_0390
hypothetical protein		4.04977	Gmet_2852
membrane protein, TerC family		4.04823	Gmet_1155
2-oxoacid:ferredoxin oxidoreductase, thiamin diphosphate-binding subunit	vorB	4.04686	Gmet_1308
L-allo-threonine aldolase, stereospecific	ItaA	4.04623	Gmet_0270
acetate kinase-related protein		4.04382	Gmet_0149
phosphoribosylformylglycinamide synthase, PurS and PurL domains	purSL	4.0396	Gmet_1941
peroxiredoxin, 1-Cys subfamily, selenocysteine-containing	prx-4	4.03901	Gmet_0150
threonine synthase	thrC	4.03827	Gmet_1631
3-methyl-2-oxobutanoate hydroxymethyltransferase	panB	4.03806	Gmet_1642
hypothetical protein		4.03671	Gmet_1648
hypothetical protein		4.03671	Gmet_2757
hypothetical protein		4.03671	Gmet_3093
hypothetical protein		4.03588	Gmet_0779
twin-arginine translocation pathway protein TatC	tatC	4.03546	Gmet_1387

Ech-hydrogenase-related complex, HyfE-like integral membrane subunit	ehrC-2	4.03502	Gmet_0373
AspT family membrane protein, TrkA-C domain pair-containing tRNA (N6-threonylcarbamyl-A37) modification ATPase	yrdC	4.03341	Gmet_2550
rubrerythrin		4.03317	Gmet_1595
Glu/Leu/Phe/Val dehydrogenase superfamily protein glycosyltransferase, SpsF domain-containing		4.03239	Gmet_0668
lipoprotein, putative		4.03198	Gmet_1728
hypothetical protein		4.03185	Gmet_0454
UDP-N-acetyl-D-galactosamine 6-dehydrogenase, putative	capL	4.02529	Gmet_0241
sensor histidine kinase, GAF domain-containing		4.02377	Gmet_1734
GTP-binding domain protein		4.02153	Gmet_1994
hypothetical protein		4.02143	Gmet_2748
pyridoxamine-5'-phosphate oxidase-related FMN-binding protein		4.02045	Gmet_1982
hypothetical protein		4.0201	Gmet_1748
protein of unknown function DUF167		4.0201	Gmet_1909
response receiver type II secretion system ATPase and double zinc ribbon protein, PulE and DZR domain-containing		4.01982	Gmet_2787
heptapeptide repeat protein		4.0191	Gmet_1164
methyl-accepting chemotaxis sensory transducer	mvhV	4.0191	Gmet_3473
hypothetical protein		4.01735	Gmet_1323
NADPH:quinone oxidoreductase family protein PIG3		4.01566	Gmet_3324
succinyl-CoA synthetase, alpha subunit	sucD-1	4.0146	Gmet_0577
response receiver sensor histidine kinase, PAS domain-containing		4.01351	Gmet_0832
L-seryl-tRNA(Sec) selenium transferase	selA	4.01054	Gmet_0730
transcriptional regulator, TetR family		4.00953	Gmet_0010
type VI secretion system protein TssF	tssF	4.00601	Gmet_0061
argininosuccinate synthase	argG	4.00516	Gmet_1520
ABC transporter, periplasmic substrate-binding protein		4.00448	Gmet_3313
tRNA dihydrouridine synthase-like flavin mononucleotide-binding domain protein		4.00355	Gmet_0206
phosphoribosylaminoimidazolecarboxamide formyltransferase and IMP cyclohydrolase	purH	4.00086	Gmet_2771
hypothetical protein		4.00041	Gmet_0258
D-sedoheptulose-7-phosphate isomerase	gmhA	3.99962	Gmet_2905
octaprenyl diphosphate synthase	ispB	3.99824	Gmet_0025
sensor histidine kinase		3.99824	Gmet_0920
hypothetical protein		3.99824	Gmet_2455
protein of unknown function DUF86		3.99479	Gmet_2770
hydrolase, putative		3.99378	Gmet_1240
		3.99319	Gmet_1314
		3.99319	Gmet_2922

integrase/recombinase XerD	xerD	3.99091	Gmet_1427
phosphoribosylglycinamide			
formyltransferase, formate-dependent	purT	3.98533	Gmet_3193
cytochrome c	ppcC	3.98313	Gmet_3165
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		3.98183	Gmet_2730
tRNA (5-carboxymethylaminomethyl-2-			
selenu-U34)-2-selenouridine synthase	selU	3.98146	Gmet_2384
LysM domain lipoprotein		3.97938	Gmet_1358
translation elongation factor P-lysine			
lysyltransferase	genX	3.97938	Gmet_1839
indolepyruvate:ferredoxin oxidoreductase,			
beta subunit	iorB-1	3.97564	Gmet_1826
cell shape-determining protein RodA	rodA	3.97446	Gmet_0929
zinc protease PmbA, putative		3.96883	Gmet_0947
type VI secretion system outer membrane			
lipoprotein TssJ	tssJ	3.96271	Gmet_3310
hypothetical protein		3.96076	Gmet_2089
transcriptional regulator, TetR family		3.96076	Gmet_2645
phosphoglycerate mutase family protein		3.95986	Gmet_1428
negative regulator of flagellin synthesis			
FlgM	flgM	3.95338	Gmet_0436
hypothetical protein		3.95225	Gmet_0244
protein of unknown function DUF2844		3.95155	Gmet_1675
cytochrome c		3.95054	Gmet_2470
hypothetical protein		3.94849	Gmet_1636
menaquinol oxidoreductase complex Cbc5,			
membrane protein subunit, putative	cbeC	3.94849	Gmet_2932
undecaprenyl-diphospho-oligosaccharide flippase		3.94792	Gmet_1326
lipid A biosynthesis acyltransferase		3.94626	Gmet_0091
sensor histidine kinase response regulator		3.94589	Gmet_1765
P-loop-containing kinase UPF0042		3.94428	Gmet_1286
corrinoid-binding domain protein		3.94239	Gmet_2751
helix-turn-helix XRE domain protein		3.94239	Gmet_3164
enoyl-(acyl carrier protein) reductase	fabI	3.94098	Gmet_2558
tetraacyldisaccharide-1-phosphate 4'-kinase	lpxK	3.94036	Gmet_2347
hypothetical protein		3.93666	Gmet_2337
protein of unknown function DUF3108		3.93631	Gmet_2836
exonuclease ABC, C subunit	uvrC	3.93592	Gmet_3228
protein glutamate methyltransferase CheR			
associated with MCPs of classes 40H and			
40+24H	cheR64H	3.93458	Gmet_3267
hypoxanthine/guanine transport membrane			
protein	pbuG	3.93411	Gmet_2715
sensor diguanylate cyclase/phosphodiesterase, PAS, PAS			
and PAS domain-containing		3.93059	Gmet_3085
ABC transporter, ATPase protein		3.9294	Gmet_0997

ABC transporter, ATP-binding protein	ybhF-N1	3.9289	Gmet_0658
sensor histidine kinase CheA and response receiver CheY associated with MCPs of class 40H	cheAY40H-2	3.92794	Gmet_2710
UDP-2-acetamido-2, 6-dideoxy-beta-L-arabino-4-hexulose 4-aminotransferase, putative hypothetical protein		3.92785	Gmet_0457
23S rRNA (2-N-methyl-G2445)-methyltransferase, putative cytochrome c	rImL	3.92424	Gmet_0175
response regulator, putative hypothetical protein		3.92424	Gmet_0398
type VI secretion system protein TssG	tssG	3.92424	Gmet_0909
hypothetical protein		3.92424	Gmet_2679
hypothetical protein		3.92424	Gmet_3000
hypothetical protein		3.92424	Gmet_3314
hypothetical protein		3.92424	Gmet_3376
hypothetical protein		3.92424	Gmet_3630
hypothetical protein		3.92141	Gmet_3256
hypothetical protein		3.91798	Gmet_3224
sensor sigma-54-dependent transcriptional regulator, GAF and GAF domain-containing hypothetical protein		3.91342	Gmet_0763
menaquinol oxidoreductase complex Cbc6, lipoprotein cytochrome c subunit	cbcM	3.91118	Gmet_3270
SAM-dependent methyltransferase, putative hypothetical protein		3.91012	Gmet_0536
nitrogen regulatory protein P-II uridylyltransferase, GlnD	glnD	3.90988	Gmet_2955
nickel ABC transporter, ATP-binding protein	nikO	3.9083	Gmet_0026
dihydrofolate reductase	folA	3.90632	Gmet_1426
protein of unknown function DUF520	yajQ	3.90632	Gmet_2439
zinc metalloendopeptidase M23 domain protein		3.90586	Gmet_2947
MoxR family ATPase		3.90574	Gmet_3206
lipid A disaccharide synthase	lpxB	3.90538	Gmet_1854
membrane protein DUF81, putative		3.90221	Gmet_2350
YbbR domain protein		3.90221	Gmet_1097
radical SAM domain iron-sulfur cluster-binding oxidoreductase, DUF2344-containing hypothetical protein		3.90182	Gmet_1887
SAM-dependent methyltransferase, putative		3.90039	Gmet_3191
type VI secretion system needle sheath protein TssB	tssB	3.89824	Gmet_2443
nucleoside diphosphate-sugar dehydratase, putative		3.89744	Gmet_2882
protein of unknown function DUF721		3.89744	Gmet_0278
exinuclease ABC, A subunit	uvrA	3.89744	Gmet_0925
tRNA pseudouridines 38,39,40 synthase	truA	3.89628	Gmet_2875
phospholipid/lipopolysaccharide-flipping		3.89449	Gmet_0128
ABC transporter MsbA	msbA	3.89365	Gmet_0605
TIM alpha/beta-barrel protein		3.89132	Gmet_2349

NADH dehydrogenase I, E subunit	nuoE-2	3.89069	Gmet_0154
hypothetical protein		3.88957	Gmet_3488
ferrochelatase	hemH	3.88748	Gmet_0019
SAM-dependent methyltransferase, putative		3.88591	Gmet_2886
2',5' RNA ligase		3.88471	Gmet_3530
chromate transport protein ChrA, subunit 2, putative		3.88242	Gmet_2731
dihydroorotate	pyrC	3.8792	Gmet_1770
hypothetical protein		3.87461	Gmet_3063
cardiolipin synthase, putative	cls-2	3.86886	Gmet_0065
diploptene adenosyltransferase and			
reductase	hpnH	3.86679	Gmet_2823
protein glutamate methyltransferase CheR	cheR-7	3.86663	Gmet_2641
Ech-hydrogenase-related complex, HyFF-like			
integral membrane subunit	ehrD-1	3.86585	Gmet_2598
heterodisulfide oxidoreductase, NAD(P)H			
oxidoreductase subunit F	hdrF	3.8615	Gmet_3431
membrane protein, major facilitator superfamily		3.86073	Gmet_0257
phosphate transport system regulatory			
protein PhoU	phoU	3.86011	Gmet_2705
DNA replication and repair protein RecF	recF	3.85975	Gmet_0003
integron integrase		3.85815	Gmet_3006
cobalt/zinc/iron/cadmium/nickel efflux			
protein	dmeF	3.85815	Gmet_3071
DNA mismatch repair ATPase MutS-2	mutS-2	3.8566	Gmet_2974
phosphoenolpyruvate--protein			
phosphotransferase	ptsI	3.8514	Gmet_1289
nitrilase/amidohydrolase superfamily protein, class 8		3.85131	Gmet_2863
periplasmic polysaccharide biosynthesis/export protein		3.84877	Gmet_1345
D-lactate dehydrogenase, CCG domain pair-			
containing subunit, putative	larF	3.84699	Gmet_3246
FlhB domain protein		3.84624	Gmet_3161
dTDP-glucose 4,6-dehydratase	rmlB	3.84579	Gmet_2473
YdcF-like protein of unknown function DUF218		3.84304	Gmet_2322
membrane protein, putative		3.84244	Gmet_2414
mobilization protein MobB, putative		3.84244	Gmet_A3575
endonuclease III family protein		3.84118	Gmet_1654
outer membrane lipoprotein, Slp family		3.83866	Gmet_1429
glycosyltransferase		3.83842	Gmet_2879
hypothetical protein		3.83808	Gmet_2547
ketose-1,6-bisphosphate aldolase, class II, putative		3.83378	Gmet_1761
laccase family multicopper oxidase		3.82933	Gmet_3434
hypothetical protein		3.82663	Gmet_0826
leucyl aminopeptidase-related protein		3.8247	Gmet_3024
hypothetical protein		3.82214	Gmet_1095
membrane protein, putative		3.82114	Gmet_1273
peptidase, putative		3.8199	Gmet_1209

ferredoxin	frx-1	3.81618	Gmet_1241
hydrolase, putative		3.81321	Gmet_1621
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-4	3.81268	Gmet_0712
helix-turn-helix transcriptional regulator, putative		3.81234	Gmet_3086
type IIs restriction endonuclease		3.81169	Gmet_3138
protein glutamate methyltransferase CheR associated with MCPs of class 40H	cheR40H-1	3.81123	Gmet_2305
Ech-hydrogenase-related complex, NuoH-like integral membrane subunit	ehrB-1	3.81035	Gmet_2600
protein glutamate methyltransferase CheB and methyltransferase CheR	cheBR	3.8093	Gmet_0780
lytic transglycosylase domain protein		3.79871	Gmet_1377
SAM-dependent methyltransferase, putative		3.79818	Gmet_0795
dihydrolipoamide dehydrogenase	lpdA-3	3.79591	Gmet_0177
acetyltransferase, putative		3.79495	Gmet_0224
membrane protein DedA		3.79365	Gmet_1368
ResB-like family cytochrome c		3.78673	Gmet_0592
protein of unknown function DUF486		3.78673	Gmet_1773
succinyl-CoA synthetase, beta subunit	sucC-1	3.78299	Gmet_0729
metal-dependent phosphohydrolase, HDOD domain-containing		3.78188	Gmet_3268
membrane protein DUF445, putative		3.77985	Gmet_0227
SAM-dependent methyltransferase, PUA domain-containing		3.77947	Gmet_0845
indolepyruvate:ferredoxin oxidoreductase, alpha subunit	iorA-1	3.77933	Gmet_1827
hypothetical protein		3.7774	Gmet_0105
UDP-glucose--lipopolysaccharide core heptose I 4-beta-glucosyltransferase, putative		3.77668	Gmet_2885
lipoprotein, putative		3.77585	Gmet_0742
sensor histidine kinase, nonconserved putative heme-binding site		3.77554	Gmet_2287
hypothetical protein		3.77368	Gmet_0360
hypothetical protein		3.76504	Gmet_1983
nickel ABC transporter, membrane protein NikMN	nikMN	3.76157	Gmet_2441
sensor histidine kinase, PAS, PAS, PAS and sensory_box domain-containing		3.75869	Gmet_1083
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-13	3.75497	Gmet_2828
ResB-like family cytochrome c		3.75431	Gmet_0562
shikimate kinase	aroK	3.75431	Gmet_0977
antitoxin, AbrB family		3.75431	Gmet_1339
flagellar biogenesis protein FliQ	fliQ	3.75431	Gmet_3096
sensor histidine kinase of FgrL, PAS domain-containing	fgrK	3.75357	Gmet_0011

pyridoxamine-5'-phosphate oxidase-related FMN-binding protein		3.7514	Gmet_0160
membrane protein of unknown function DUF395, YeeE/YedE-related protein		3.7514	Gmet_3453
helix-turn-helix transcriptional regulator, putative sensor histidine kinase, HAMP domain-containing		3.75075	Gmet_2889
Delta-1-pyrroline-5-carboxylate reductase proC		3.75059	Gmet_3157
zinc-dependent peptidase, M16 family		3.74898	Gmet_0899
hypothetical protein		3.7485	Gmet_2530
DNA repair exonuclease SbcCD, C subunit, putative	sbcC	3.74721	Gmet_2459
uncharacterized protein SlyX	slyX	3.74632	Gmet_1224
TPR domain lipoprotein		3.74367	Gmet_0017
signal peptidase I	lepB	3.74367	Gmet_3542
Ech-hydrogenase-related complex, NuoL-like integral membrane subunit	ehrA-2	3.74155	Gmet_1767
flagellar biogenesis protein FliO	fliO	3.74079	Gmet_0375
NUDIX hydrolase, type 15		3.74064	Gmet_3098
ABC transporter, ATP-binding protein		3.73715	Gmet_0207
peptidylprolyl cis-trans isomerase, cyclophilin-type		3.72959	Gmet_0013
flagellar biogenesis master response receiver sensor histidine kinase	fgrL	3.72679	Gmet_2722
cytochrome c		3.72645	Gmet_0012
SAM-dependent methyltransferase, putative protein of unknown function DUF309		3.72597	Gmet_0576
response receiver-modulated cyclic diguanylate phosphodiesterase		3.7226	Gmet_1390
polysaccharide chain length determinant protein		3.7226	Gmet_3375
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		3.7226	Gmet_3476
indolepyruvate:ferredoxin oxidoreductase, alpha subunit	iorA-2	3.71843	Gmet_2029
transcriptional regulator, TetR family		3.71334	Gmet_0101
nicotinate phosphoribosyltransferase		3.71299	Gmet_0948
diadenylate cyclase		3.71158	Gmet_0803
hypothetical protein		3.70587	Gmet_2373
decarboxylase, BtrK-related protein		3.7056	Gmet_1888
cytidine-specific tRNA nucleotidyltransferase	ccaC	3.70364	Gmet_2535
DNA gyrase, B subunit	gyrB	3.70185	Gmet_2019
prolidase family protein		3.70073	Gmet_2285
helix-turn-helix transcriptional response regulator, LuxR family		3.697	Gmet_0004
hypothetical protein		3.697	Gmet_2690
response regulator		3.69499	Gmet_2158
hypothetical protein		3.69158	Gmet_3181
L-threonine-0-3-phosphate decarboxylase	cobD	3.69158	Gmet_3472
		3.69158	Gmet_3602
		3.68977	Gmet_0487

adenosine kinase			3.68922	Gmet_2683
endonuclease III-related protein	nth		3.68674	Gmet_0070
lipoprotein, putative			3.68647	Gmet_3452
cob(I)yrinate a,c-diamide				
adenosyltransferase	cobA		3.68545	Gmet_1573
branched-chain amino acid ABC				
transporter, membrane protein	livH		3.68545	Gmet_1822
SCP-like extracellular protein			3.68138	Gmet_0796
enoyl-CoA hydratase/isomerase			3.67769	Gmet_1716
DnaJ adenine nucleotide exchange factor				
GrpE	grpE		3.67631	Gmet_3533
protein kinase, ArgK family, putative			3.67462	Gmet_1576
RNA polymerase-binding protein Rnk	rnk		3.67126	Gmet_2606
TPR-related repeat protein			3.66668	Gmet_2765
riboflavin kinase and FAD synthetase	ribF		3.66566	Gmet_1388
thiamin biosynthesis protein Thil-related adenine				
nucleotide alpha hydrolase superfamily protein			3.6655	Gmet_3402
YHS/TRASH domain protein			3.6612	Gmet_1543
tRNA (5-methoxy-U34)-methyltransferase	cmoB		3.6612	Gmet_2531
transpeptidase			3.6612	Gmet_2778
oxygen-independent coproporphyrinogen				
III oxidase	hemN		3.6612	Gmet_3535
iron-sulfur cluster-binding sigma-54-dependent				
transcriptional regulator, FehydlgC and FeS domain-containing			3.6593	Gmet_0055
dimetal-binding protein YqfO	yqfO		3.65733	Gmet_0399
membrane protein, putative			3.65692	Gmet_1389
iron-sulfur cluster-binding oxidoreductase,				
cyano_FeS_chp family			3.65454	Gmet_2049
protein of unknown function UPF0047			3.65031	Gmet_0727
transporter membrane protein of unknown function				
DUF140			3.6498	Gmet_2543
fibronectin type III repeat, DUF2341 repeat and LamG-like domain protein				
diadenylate cyclase, YbbR and YbbR domain-containing			3.64964	Gmet_2469
cytosolic aminopeptidase, M17 family	pepA		3.64892	Gmet_1168
DprA/Smf-related protein, family 2			3.64662	Gmet_3361
FAD-dependent oxidoreductase, putative			3.64625	Gmet_2804
flavin-dependent oxidoreductase, putative			3.64449	Gmet_2676
membrane protein of unknown function DUF606			3.64472	Gmet_2045
GTP-dependent translational factor YchF, putative	ychF		3.6413	Gmet_2636
peptidoglycan L,D-transpeptidase, YkuD family, LysM domain-containing			3.6413	Gmet_2845
pyridoxal-5'-phosphate-dependent decarboxylase			3.63922	Gmet_2463
RNA methyltransferase, TrmA family			3.63211	Gmet_1644
histidine kinase-like ATPase			3.63146	Gmet_1835
			3.63146	Gmet_2540

(R)-methylmalonyl-CoA mutase, isobutyryl-CoA mutase-like catalytic subunit		3.62688	Gmet_3251
PilZ domain protein		3.62558	Gmet_2523
protein of unknown function DUF2127		3.62468	Gmet_2637
selenium metabolism protein YedF, putative	yedF	3.62411	Gmet_1085
lipoprotein, putative		3.61973	Gmet_3557
hypothetical protein		3.61889	Gmet_0044
rhodanese homology domain superfamily protein		3.61889	Gmet_3018
ATP-dependent DNA helicase, PcrA/UvrD/Rep family		3.61765	Gmet_3223
tRNA (5-carboxymethylaminomethyl-U34) modification GTPase	mnmE	3.61642	Gmet_3560
alpha-glucan phosphorylase		3.61491	Gmet_3159
peptidase, M48 family		3.60644	Gmet_0096
sodium/solute symporter family protein	apIA	3.60558	Gmet_0739
FAD-dependent pyridine nucleotide-disulfide oxidoreductase family protein, rhodanese homology domain-containing		3.60359	Gmet_3484
NADH-dependent flavin oxidoreductase, Oye family		3.60231	Gmet_0123
hypothetical protein		3.60231	Gmet_2813
chromosome condensation membrane protein CrcB, putative	crcB	3.60231	Gmet_3016
peptide ABC transporter, periplasmic peptide-binding lipoprotein		3.59829	Gmet_1234
molybdopterin-binding domain			
nicotinamide nucleotide amidohydrolase, putative	cinA	3.59707	Gmet_0196
ResC/HemX-like cytochrome c		3.59707	Gmet_0594
hypothetical protein		3.59655	Gmet_0318
nitrogen regulatory protein P-II	glnK	3.59591	Gmet_0694
MgtC family protein		3.59591	Gmet_1981
acetate--coenzyme A ligase	acsA	3.59561	Gmet_2340
hypothetical protein		3.59409	Gmet_0820
nitrogen fixation master sigma-54-dependent transcriptional response regulator	gnfM	3.5842	Gmet_2563
oxidoreductase, flavin-binding protein		3.5832	Gmet_2911
glycosyltransferase		3.58185	Gmet_1408
glucose-1-phosphate uridylyltransferase	galU	3.5799	Gmet_1159
spermine/spermidine synthase-related protein		3.57975	Gmet_0583
mannose-6-phosphate isomerase, putative		3.57941	Gmet_2471
translation-regulating membrane GTPase TypA	typA	3.57434	Gmet_3013
hypothetical protein		3.5697	Gmet_1792
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		3.56876	Gmet_1700
squalene cyclase	shc-2	3.56533	Gmet_0419

antitoxin, HicB family			3.56434	Gmet_1321
carbon starvation protein CstA	cstA-2		3.56434	Gmet_2696
ResC/HemX-like cytochrome c			3.56167	Gmet_0579
CRISPR-associated integrase			3.56167	Gmet_1068
zinc metalloendopeptidase, M23 family			3.5606	Gmet_1559
scaffold protein CheW associated with MCPs of class 40H	cheW40H-5		3.55967	Gmet_2708
pyridoxal-5'-phosphate-dependent enzyme, class III	yggS		3.55811	Gmet_0896
hypothetical protein			3.55687	Gmet_0817
methyl viologen-reducing hydrogenase maturation protease	mvhP		3.555	Gmet_3323
hypothetical protein			3.55367	Gmet_1012
acyltransferase, putative			3.55056	Gmet_1688
sigma-54-dependent transcriptional response regulator			3.54573	Gmet_0961
hypothetical protein			3.54573	Gmet_1134
ROK domain transcriptional regulator/sugar kinase			3.54573	Gmet_1639
protein of unknown function DUF188			3.54573	Gmet_1725
2-oxoglutarate dehydrogenase, E1 protein	sucA		3.54573	Gmet_2769
polypeptide formylmethionine deformylase	def-2		3.54573	Gmet_3553
guanosine-5'-monophosphate synthase	guaA		3.54295	Gmet_2292
hypothetical protein			3.53782	Gmet_2589
chromosome segregation ATPase SMC			3.53712	Gmet_1174
peptidoglycan-binding ATPase, putative	exeA		3.53544	Gmet_2466
dehypoxanthinylfutalosine cyclase, putative	mqnC-1		3.53345	Gmet_3390
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-21		3.53226	Gmet_2709
polysaccharide deacetylase domain protein			3.52996	Gmet_2023
disulfide bond formation oxidoreductase DsbB	dsbB		3.52735	Gmet_1381
hypothetical protein			3.52604	Gmet_2044
pppGpp 5'-phosphohydrolase and exopolyphosphatase, HD domain-containing	gppA-2		3.52594	Gmet_0880
S4 domain protein			3.5237	Gmet_0098
NAD-dependent nucleoside diphosphate-sugar epimerase/dehydratase			3.52072	Gmet_0823
PilZ domain protein			3.51933	Gmet_1757
hypothetical protein			3.51522	Gmet_0755
peptidylprolyl cis-trans isomerase, PpiC-type			3.51436	Gmet_1817
nicotinamidase-related cysteine hydrolase			3.51436	Gmet_2952
nucleotidyltransferase, putative			3.51281	Gmet_3257
arylsulfotransferase			3.51074	Gmet_1382
type VI secretion system needle sheath protein TssC	tssC		3.51018	Gmet_0279
DNA polymerase IV			3.50688	Gmet_1441

O-acetyl-L-homoserine sulfhydrylase	metY-2	3.5047	Gmet_0819
nucleotidyltransferase		3.5047	Gmet_1320
formate dehydrogenase formation protein	fdhE	3.50406	Gmet_1004
stalled replication fork rescue ATPase	rarA	3.50266	Gmet_0939
sigma-54-dependent transcriptional response regulator		3.50074	Gmet_1992
protein glutamine deamidase and protein			
glutamate methyl esterase CheD associated			
with MCPs of class 34H	cheD34H	3.50021	Gmet_2419
sensor protein serine/threonine phosphatase, PP2C			
family, PAS and PAS domain-containing		3.49932	Gmet_2115
hypothetical protein		3.49893	Gmet_2449
glycoside hydrolase, putative		3.49858	Gmet_2918
protein of unknown function, DUF1250-containing		3.49646	Gmet_3051
Kef-type potassium transporter, NAD-binding protein		3.49556	Gmet_1105
ATP-dependent DNA helicase RecG	recG	3.49409	Gmet_1777
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase, putative		3.49342	Gmet_1006
hydrogenase expression/formation protein			
HypD	hypD	3.49326	Gmet_0117
hypothetical protein		3.49128	Gmet_0877
helix-turn-helix transcriptional regulator, MerR family		3.49128	Gmet_1724
RNA-binding protein		3.49128	Gmet_2631
sensor histidine kinase response regulator, Cache_2 and			
HAMP domain-containing		3.49019	Gmet_0077
membrane protein, putative		3.48814	Gmet_1967
peptidoglycan-binding domain 1 protein		3.48188	Gmet_1679
NADH pyrophosphatase	nudC	3.4816	Gmet_0714
sensor diguanylate cyclase/phosphodiesterase, S-box-			
containing		3.47553	Gmet_0782
ABC transporter, ATP-binding protein		3.47534	Gmet_2630
cytochrome c		3.47493	Gmet_2301
response receiver CheY associated with			
MCPs of classes 40H and 40+24H	cheY64H-2	3.47006	Gmet_2827
redox-active membrane protein		3.46565	Gmet_1779
hypothetical protein		3.46481	Gmet_1610
pyrimidine operon regulator and uracil			
phosphoribosyltransferase PyrR	pyrR	3.46279	Gmet_1768
phosphoglycerate mutase 1	gpmA	3.46189	Gmet_1653
HAD superfamily hydrolase		3.45957	Gmet_0937
ferritin-like domain protein		3.45609	Gmet_1928
hypothetical protein		3.4531	Gmet_3061
diguanylate cyclase, CAP_ED domain-containing		3.45232	Gmet_0773
protein of unknown function UPF0027		3.45064	Gmet_1619
tRNA (2-methylthio-N6-threonylcarbamyl-			
A37) methylthiotransferase	mtaB	3.44547	Gmet_0874
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		3.44263	Gmet_0587

efflux pump, RND family, membrane fusion protein		3.44237	Gmet_2408
NADPH oxidoreductase		3.43881	Gmet_1074
Ech-hydrogenase-related complex, HyfF-like			
integral membrane subunit	ehrD-2	3.43276	Gmet_0372
PEP motif-containing protein, putative exosortase			
substrate		3.43276	Gmet_2608
efflux pump, RND family, membrane fusion lipoprotein		3.43172	Gmet_1651
periplasmic substrate-binding histidine kinase		3.43129	Gmet_2788
sulfate ABC transporter, periplasmic sulfate-			
binding protein	cysP	3.43025	Gmet_1906
arsenate reductase and protein tyrosine			
phosphatase	arsC	3.42854	Gmet_0521
cytochrome c		3.42854	Gmet_0575
acyl-CoA thioesterase		3.42854	Gmet_1692
creatinine amidohydrolase superfamily protein		3.42674	Gmet_1659
phosphoglucosamine mutase	glmM	3.42599	Gmet_1886
membrane protein, putative		3.42242	Gmet_0570
hypothetical protein		3.42174	Gmet_3451
translation elongation factor Tu	tuf-2	3.42053	Gmet_0611
ATPase DUF815, putative		3.41931	Gmet_1239
leucyl aminopeptidase AmpS, putative		3.41913	Gmet_1594
methyl-accepting chemotaxis sensory			
transducer, class 34H-related protein	mcp34H-1	3.41558	Gmet_2430
membrane-associated zinc metalloprotease			
RseP	rseP	3.41429	Gmet_1257
FAD-dependent pyridine nucleotide-disulfide			
oxidoreductase family protein		3.41066	Gmet_3041
protein of unknown function DUF2442		3.40486	Gmet_2500
undecaprenyl-phosphate glycosyltransferase, DPM1-like			
family		3.40341	Gmet_2892
threonine and serine dehydratase and			
deaminase, catabolic	tdcB	3.39888	Gmet_3072
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		3.39483	Gmet_1246
enoyl-CoA hydratase/isomerase		3.39372	Gmet_1572
galactosyltransferase/glucosyltransferase		3.39271	Gmet_2334
3-oxoacyl-(acyl carrier protein) synthase-related protein		3.39234	Gmet_1696
thioredoxin domain protein		3.39234	Gmet_2652
hypothetical protein		3.39202	Gmet_2653
acyl-(acyl carrier protein) ligase, acyl carrier, [acyl-]			
]glycerolphosphate acyltransferase fusion protein		3.39081	Gmet_1613
ABC transporter, membrane protein		3.38818	Gmet_0524
glycine cleavage system T protein	gcvT	3.3862	Gmet_3155
peptide ABC transporter, ATP-binding protein		3.37917	Gmet_0848
sulfite reductase subunit, putative		3.37917	Gmet_1570
response regulator, PilZ domain-containing		3.3758	Gmet_3220
helicase, putative		3.37296	Gmet_0994

menaquinol oxidoreductase complex Cbc6, lipoprotein cytochrome c subunit	cbcR	3.3717	Gmet_0541
sensor histidine kinase		3.3717	Gmet_3474
5,10-methylenetetrahydrofolate reductase	metF-1	3.36842	Gmet_1160
phosphate sensor histidine kinase, HAMP and PAS domain-containing	phoR	3.36352	Gmet_2694
flagellar biogenesis protein FlhB	flhB	3.36352	Gmet_3094
cobalt ABC transporter, membrane protein CbiQ	cbiQ	3.36209	Gmet_0474
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		3.36047	Gmet_1705
metal-dependent hydrolase, beta-lactamase superfamily		3.35635	Gmet_0765
protein of unknown function, DUF4124-containing		3.35539	Gmet_2047
sigma-54-dependent sensor transcriptional regulator, PAS domain-containing		3.35487	Gmet_0339
single-stranded DNA-specific exonuclease			
RecJ	recJ	3.35415	Gmet_0857
acyl-protein synthetase		3.35308	Gmet_0595
cytochrome c		3.35098	Gmet_0679
NAD-dependent nucleoside diphosphate-sugar epimerase/dehydratase		3.3505	Gmet_1338
sensor histidine kinase		3.34893	Gmet_0687
hypothetical protein		3.34616	Gmet_1008
transporter, DUF21, CBS domain pair and CorC_HlyC domain-containing, putative		3.3457	Gmet_1153
ribosome small subunit biogenesis GTPase			
RsgA	rsgA	3.34329	Gmet_0794
lipopolysaccharide ABC transporter, membrane protein LptF	lptF	3.33928	Gmet_1249
thioredoxin/NifU-like domain protein		3.33928	Gmet_3080
hypothetical protein		3.33928	Gmet_3578
major royal jelly-related protein		3.33558	Gmet_2448
endodeoxyribonuclease IV	nfo	3.33422	Gmet_2994
menaquinol oxidoreductase complex Cbc3, cytochrome c subunit	cbcX	3.33394	Gmet_1924
protoheme IX farnesyltransferase	ctaB	3.32863	Gmet_0253
protein of unknown function DUF2064		3.3273	Gmet_3073
ATPase, AAA_5 family		3.32333	Gmet_0021
SMR domain protein		3.32333	Gmet_1296
BioD and DRTGG domain protein		3.32333	Gmet_1616
aspartyl/glutamyl-tRNA(Asn/Gln) amidotransferase, A subunit	gatA	3.32135	Gmet_0075
outer membrane lipoprotein carrier/sorting protein LolA		3.32135	Gmet_3207
hypothetical protein		3.31881	Gmet_1135
peptidyl-tRNA hydrolase-related protein		3.31543	Gmet_2976
transcription-repair coupling factor	mfd	3.31543	Gmet_3547
protein glutamate methyltransferase CheR	cheR34H	3.31418	Gmet_2420

associated with MCPs of class 34H				
cation-translocating P-type ATPase		3.31087	Gmet_1614	
PilB/PuLE/GspE family ATPase		3.30981	Gmet_0861	
hypothetical protein		3.30858	Gmet_3064	
carboxythiazole phosphate tautomer synthase	thiG	3.30572	Gmet_2934	
response receiver		3.30365	Gmet_0762	
ATPase, AAA family		3.30365	Gmet_0905	
exodeoxyribonuclease VII, small subunit	xseB	3.30131	Gmet_1936	
protein 3-oxoalanine-generating enzyme family protein		3.29934	Gmet_2718	
type VI secretion system ATPase TssH, putative chaperone	tssH	3.29934	Gmet_3315	
nucleic acid-binding protein, putative		3.2976	Gmet_3050	
protein phosphoaspartate phosphatase				
CheX associated with MCPs of class 40H	cheX40H	3.29621	Gmet_0184	
thioredoxin domain protein		3.29585	Gmet_2654	
glycosyltransferase		3.29585	Gmet_2740	
periplasmically oriented, membrane-bound				
formate dehydrogenase, cytochrome b				
subunit	fdnI	3.29555	Gmet_1061	
sulfate ABC transporter, membrane protein				
CysU	cysU	3.29197	Gmet_1905	
integration host factor, alpha subunit	ihfA-4	3.27654	Gmet_3056	
sensor histidine kinase, HAMP domain-containing		3.27583	Gmet_1057	
glycosyltransferase		3.27531	Gmet_2880	
flavoredoxin		3.26889	Gmet_0805	
DNA methyltransferase, putative		3.26542	Gmet_0676	
periplasmically oriented, membrane-bound				
formate dehydrogenase, major subunit,				
selenocysteine-containing	fdnG	3.2646	Gmet_1059	
hypothetical protein		3.26431	Gmet_0921	
nucleoside phosphorylase		3.26317	Gmet_1274	
type VI secretion system DUF2094 and ImpA-related				
domain protein		3.26249	Gmet_0275	
hypothetical protein		3.26236	Gmet_2785	
metal-dependent phosphohydrolase, HDOD domain-containing				
hypothetical protein		3.26127	Gmet_0944	
IPT/TIG domain protein		3.25975	Gmet_1049	
integrase core domain protein		3.25975	Gmet_1247	
adenosylcobinamide-phosphate synthase	cbiB	3.25294	Gmet_3047	
hypothetical protein		3.25068	Gmet_0486	
protein of unknown function DUF980		3.25068	Gmet_2486	
CARDB domain lipoprotein, putative		3.24617	Gmet_2917	
D-glycero-D-mannoheptose-1,7-bisphosphate phosphatase	gmhB	3.24416	Gmet_1998	
nucleoid maintenance ATPase YjeE	yjeE	3.23867	Gmet_0923	
		3.23718	Gmet_1881	

hypothetical protein		3.23618	Gmet_1402
ligand-gated TonB-dependent outer membrane channel		3.23547	Gmet_1669
UbiD family decarboxylase		3.23435	Gmet_0993
hypothetical protein		3.23334	Gmet_1937
acyl-CoA synthetase, AMP-forming		3.23297	Gmet_0256
protein of unknown function DUF477		3.23122	Gmet_1372
tRNA(Ile) lysidine-34 synthase, putative		3.2307	Gmet_1891
4-hydroxythreonine-4-phosphate dehydrogenase	pdxA	3.22909	Gmet_3404
hypothetical protein		3.22893	Gmet_2944
SEFIR domain protein		3.22849	Gmet_1793
NADH dehydrogenase I, J subunit	nuoJ-2	3.22824	Gmet_0165
cytochrome c	ccdA-1	3.22824	Gmet_2451
protein of unknown function, PhnB-like family		3.22824	Gmet_2483
desulfoferrodoxin, putative		3.22824	Gmet_2613
winged-helix phosphate transcriptional response regulator	phoB	3.22697	Gmet_2693
phosphoribosylformylglycinamidine synthase, PurQ domain protein	purQ	3.2251	Gmet_1940
heterodisulfide oxidoreductase, FAD-binding and iron-sulfur cluster-binding subunit A	hdrA	3.22434	Gmet_3426
hypothetical protein		3.21797	Gmet_0284
DNA repair protein RecO	recO	3.21642	Gmet_2943
hypothetical protein		3.21529	Gmet_1409
cytoplasmic membrane protein FxsA	fxsA	3.21274	Gmet_0772
ribonuclease Z-related hydrolase		3.20575	Gmet_0188
sensor histidine kinase LytS, GAF domain-containing	lytS	3.20302	Gmet_2698
6-phosphofructokinase	pfk-1	3.1978	Gmet_1640
zinc-dependent isopeptidase		3.19088	Gmet_1569
protein of unknown function, DUF830-containing		3.19016	Gmet_0084
zinc-dependent peptidase, M16 family		3.18838	Gmet_0052
radical SAM domain iron-sulfur cluster-binding		3.18316	Gmet_1693
oxidoreductase with cobalamin-binding-like domain		3.18008	Gmet_2027
hypothetical protein			
2-oxoglutarate dehydrogenase, E2 protein, dihydrolipoamide succinyltransferase	sucB	3.17922	Gmet_2766
chaperonin Hsp33	hsIO	3.17769	Gmet_0041
protein of unknown function YceG	yceG	3.17578	Gmet_3021
sensor histidine kinase response regulator, HAMP domain-containing, putative heme-binding site		3.16739	Gmet_2426
Ech-hydrogenase-related complex, large subunit	ehrL-1	3.16721	Gmet_2597
hypoxanthine/guanine phosphoribosyltransferase, putative		3.16644	Gmet_2716
hypothetical protein		3.16579	Gmet_0036

peptidoglycan transpeptidase exporter, putative	mrdA	3.16318	Gmet_0928
acetate transporter AcpA family protein		3.1621	Gmet_1699
multidrug resistance efflux pump, RND family, membrane fusion protein EmrA		3.1587	Gmet_1126
bidirectional NAD-reducing hydrogenase, diaphorase subunit	hoxU	3.15485	Gmet_1375
membrane protein, UPF0118 superfamily		3.15265	Gmet_1111
formate dehydrogenase accessory protein FdhD and molybdopterin nucleotidyltransferase		3.15064	Gmet_1154
sensor histidine kinase, HAMP domain-containing hypothetical protein		3.14663	Gmet_1062
arginine decarboxylase, biosynthetic type	speA	3.14508	Gmet_0960
peroxiredoxin, typical 2-Cys subfamily	prx-1	3.14335	Gmet_1964
molybdopterin-binding iron-sulfur cluster-binding oxidoreductase MopB-3		3.14274	Gmet_0904
transporter, RhtB family		3.13925	Gmet_2723
winged helix-turn-helix transcriptional regulator, MarR family	pcmQ	3.13925	Gmet_2738
lipoprotein, putative		3.13764	Gmet_0798
glutamyl-tRNA synthetase, non-discriminating	gltX	3.13764	Gmet_2133
metal-dependent phosphoesterase, PHP family		3.13726	Gmet_1999
antitoxin, XRE family		3.13687	Gmet_1736
lipoprotein of unknown function DUF3443		3.13396	Gmet_1975
sulfate ABC transporter, membrane protein CysW	cysW	3.13069	Gmet_0317
menaquinol oxidoreductase complex Cbc3, iron-sulfur cluster-binding subunit, putative	cbcV	3.12377	Gmet_1674
lipoprotein, putative		3.12204	Gmet_1904
efflux pump, RND family, inner membrane protein, AcrB/AcrD/AcrF family		3.11688	Gmet_1922
tRNA pseudouridine 13 synthase	truD	3.11688	Gmet_3065
hypothetical protein		3.10922	Gmet_1652
FemAB superfamily protein		3.10795	Gmet_3033
ATP-dependent DNA helicase RecQ	recQ	3.10321	Gmet_1370
acyl-CoA thioesterase		3.10321	Gmet_2018
methyl-accepting chemotaxis sensory transducer, class 34H, PAS and PAS domain-containing	mcp34H-8	3.10001	Gmet_2717
hypothetical protein		3.09932	Gmet_1732
6-phosphofructokinase, ATP-dependent	pfk-2	3.09676	Gmet_2422
hypothetical protein		3.09642	Gmet_3058
hypothetical protein		3.09416	Gmet_0938
hypothetical protein		3.09416	Gmet_1093
peptidoglycan-binding domain protein, putative		3.08966	Gmet_3273
response receiver sensor histidine kinase		3.08517	Gmet_1188
cytochrome c		3.07989	Gmet_1670
		3.07624	Gmet_0142

phosphoribosyl-AMP cyclohydrolase	hisI	3.07624	Gmet_1897
small-conductance mechanosensitive ion channel	mscS-1	3.07224	Gmet_1942
diguanylate cyclase		3.07203	Gmet_2982
peptidoglycan L,D-transpeptidase, YkuD family, LysM domain-containing		3.07124	Gmet_1577
SAM-dependent methyltransferase, putative		3.07053	Gmet_2485
hypothetical protein		3.06484	Gmet_3513
exodeoxyribonuclease VII, large subunit	xseA	3.06347	Gmet_1848
hypothetical protein		3.0575	Gmet_2343
hypothetical protein		3.05634	Gmet_0706
exodeoxyribonuclease V, gamma subunit	recC	3.05294	Gmet_1894
hypothetical protein		3.04977	Gmet_0277
helix-turn-helix DNA-binding protein, putative		3.04977	Gmet_1791
peptidase, M48 family		3.04863	Gmet_0109
peptide methionine sulfoxide reductase, R-isomer-specific domain and S-isomer-specific domain-containing		3.04823	Gmet_0222
NADH dehydrogenase I, F subunit	nuoF-2	3.04521	Gmet_0157
hypothetical protein		3.04192	Gmet_0243
hypothetical protein		3.04159	Gmet_0452
aromatic hydrocarbon degradation ATPase		3.04159	Gmet_1537
thiol reductant ABC exporter, ATP-binding protein CydD	cydD	3.03797	Gmet_2634
hypothetical protein		3.03793	Gmet_0356
electron transfer flavoprotein, beta subunit		3.03671	Gmet_2153
sensor histidine kinase CheA associated with MCPs of class 34H	cheA34H	3.03671	Gmet_2427
rubredoxin		3.03671	Gmet_3241
aromatic catabolism-like sigma-54-dependent transcriptional regulator, XylR and V4R domain-containing		3.03546	Gmet_2114
PEP motif-containing protein, putative exosortase substrate		3.03442	Gmet_0797
nitrilase/amidohydrolase superfamily protein, class 5		3.03115	Gmet_3536
lipoprotein, putative		3.02807	Gmet_0289
periplasmic energy transduction protein, TonB-related protein		3.027	Gmet_1158
hypothetical protein		3.027	Gmet_1816
bacterial SH3 domain lipoprotein, putative		3.027	Gmet_3316
4-hydroxybenzoyl-CoA reductase			
molybdenum cofactor biosynthesis protein, putative	pcmW	3.02561	Gmet_2139
hypothetical protein		3.02506	Gmet_1330
ATP-binding protein, putative		3.02082	Gmet_3062
TPR domain lipoprotein		3.01982	Gmet_1506
malonyl-CoA--acyl carrier protein transacylase	fabD-1	3.01863	Gmet_1691

glycosyltransferase		3.01836	Gmet_0919
hypothetical protein		3.01735	Gmet_0082
hypothetical protein		3.01735	Gmet_0830
radical SAM domain iron-sulfur cluster-binding oxidoreductase		3.01484	Gmet_0124
ammonium transporter	amtB	3.01291	Gmet_0695
NAD-dependent nucleoside diphosphate-sugar epimerase/dehydratase		3.01095	Gmet_1335
response receiver histidine kinase		3.00863	Gmet_2712
ABC transporter, periplasmic substrate-binding protein, MCE family		3.00776	Gmet_0786
methylated DNA--protein cysteine S-methyltransferase	ogt	3.0067	Gmet_0090
Kup system potassium transporter		3.00299	Gmet_0038
proline dehydrogenase and Delta-1-pyrroline-5-carboxylate dehydrogenase	putA	3.00254	Gmet_3512
serine protease, subtilase family		3.00069	Gmet_0749
1-deoxy-D-xylulose-5-phosphate synthase	dxs-2	3.00054	Gmet_1934
short-chain acyl-CoA dehydrogenase		2.99824	Gmet_1715
DNA polymerase I	polA	2.99824	Gmet_2983
sensor histidine kinase response receiver, 4HB_MCP_1 and GAF domain-containing		2.99705	Gmet_2642
sensor histidine kinase response regulator, PAS and PAS domain-containing		2.99494	Gmet_1707
menaquinol oxidoreductase complex Cbc6, cytochrome c subunit	cbcN	2.99479	Gmet_0537
hypothetical protein		2.98983	Gmet_2800
heterodisulfide oxidoreductase, iron-sulfur cluster-binding subunit D	hdrD	2.98878	Gmet_3428
N-acetylneuraminate synthase family protein		2.98815	Gmet_0455
hypothetical protein		2.98743	Gmet_2092
archaeal DEXX-box ATPase with DUF234		2.98614	Gmet_2667
hypothetical protein		2.98564	Gmet_1023
protein of unknown function DUF190		2.98564	Gmet_3017
transcriptional regulator, Crp/Fnr family	fnr-1	2.97938	Gmet_0092
NADH dehydrogenase I, B/C/D subunits	nuoBCD	2.97436	Gmet_0153
hypothetical protein		2.97373	Gmet_0083
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		2.97031	Gmet_3504
hypothetical protein		2.96763	Gmet_0006
polysaccharide deacetylase domain protein		2.96606	Gmet_2850
Ech-hydrogenase-related complex, HyfE-like integral membrane subunit	ehrC-1	2.96413	Gmet_2599
sensor histidine kinase, PAS, PAS, PAS, PAS and PAS domain-containing		2.96385	Gmet_1218
hydroxypyruvate reductase, putative	hprA	2.96294	Gmet_2695
ABC transporter, ATP-binding protein		2.96076	Gmet_1407

bacterioferritin, cytochrome b1		2.96076	Gmet_1908
glycosyltransferase, YqgM-like family		2.959	Gmet_2890
Kup system potassium transporter		2.95481	Gmet_0039
helix-turn-helix transcriptional regulator, GntR family		2.95461	Gmet_1121
integration host factor subunit, alpha			
subunit	ihfA-3	2.95338	Gmet_3057
motility response receiver histidine kinase		2.94335	Gmet_0202
response receiver histidine kinase		2.93874	Gmet_2677
twitching motility pilus retraction ATPase	pilT-3	2.93631	Gmet_3400
sensor histidine kinase response regulator, HAMP			
domain-containing		2.93521	Gmet_1243
hypothetical protein		2.9351	Gmet_0876
periplasmically oriented, membrane-bound			
formate dehydrogenase, iron-sulfur cluster-			
binding subunit	fdnH	2.93458	Gmet_1060
mannose-1-phosphate guanylyltransferase		2.93228	Gmet_1104
menaquinol oxidoreductase complex Cbc4,			
cytochrome b subunit, putative	cbcU-1	2.93112	Gmet_3520
nucleic acid-independent polyadenylating			
polymerase	pcnB	2.93052	Gmet_3182
HEAT-like repeat-containing protein		2.9294	Gmet_3276
glycosyltransferase		2.92424	Gmet_0766
cell division ATP-dependent zinc protease			
FtsH	ftsH-1	2.92424	Gmet_2393
protein of unknown function DUF2461		2.92424	Gmet_2951
sensor histidine kinase, PAS, GAF and GAF domain-			
containing		2.92239	Gmet_2956
winged helix transcriptional response regulator		2.91769	Gmet_0688
efflux pump, RND family, inner membrane protein		2.91732	Gmet_1664
[acyl-]glycerolphosphate acyltransferase and acyl-(acyl			
carrier protein) ligase, major facilitator superfamily			
domain-containing		2.91269	Gmet_0086
hypothetical protein		2.91227	Gmet_0215
peptidase, U32 family		2.90988	Gmet_0888
metal-dependent phosphohydrolase, HDc domain-			
containing		2.9083	Gmet_1620
serine phosphatase, SpolIE domain-containing		2.90769	Gmet_3495
cytochrome c nitrite and sulfite reductase,			
catalytic subunit lipoprotein	nrfA-2	2.90632	Gmet_0296
cell shape-determining protein MreD,			
putative	mreD	2.90632	Gmet_0927
ferritin-like domain protein		2.90632	Gmet_2291
iron-sulfur cluster-binding protein		2.90318	Gmet_0999
membrane protein, AraJ family		2.90164	Gmet_1663
response receiver CheY associated with			
MCPs of class 34H	cheY34H-1	2.90039	Gmet_2428
toxin, MazF family		2.90039	Gmet_2603

lipoprotein signal peptidase	IspA	2.89744	Gmet_0352
cytochrome c		2.89567	Gmet_0825
hypothetical protein		2.89503	Gmet_1436
dihydrosipicolinate reductase	dapB	2.88591	Gmet_0212
exoribonuclease R	rnr	2.88576	Gmet_1386
protein serine/threonine kinase	rdoA	2.88422	Gmet_0246
glyoxalate/3-oxopropanoate/4-oxobutanoate reductase	ghr	2.8836	Gmet_3011
efflux pump, RND family, membrane fusion lipoprotein		2.88082	Gmet_3128
MEMO-like protein		2.88052	Gmet_1957
membrane-bound transcriptional regulator, ribonuclease BN-related protein		2.87905	Gmet_2779
hypothetical protein		2.87693	Gmet_2984
undecaprenyl-phosphate glycosylphosphotransferase		2.87587	Gmet_2031
membrane protein, major facilitator superfamily		2.87587	Gmet_2465
agmatine deiminase, putative	aguA	2.8742	Gmet_0711
lipoprotein, putative		2.87043	Gmet_3514
malonyl-CoA O-methyltransferase	bioC	2.86979	Gmet_0844
hypothetical protein		2.86979	Gmet_2660
DNA methyltransferase, putative		2.86765	Gmet_0255
amidohydrolase, YcaC-related protein		2.8615	Gmet_2564
branched-chain amino acid ABC transporter, ATP-binding protein	livG	2.85958	Gmet_1820
cytochrome c	sco	2.85876	Gmet_0248
peptidoglycan-binding lipoprotein, OmpA family		2.85876	Gmet_2553
intracellular protease, Pfpl family, putative		2.85385	Gmet_2409
kinase, putative		2.8511	Gmet_1232
NrdH-like redox domain protein, YruB family, DUF4124-containing type II secretion system major pseudopilin		2.84529	Gmet_2959
GspG	gspG	2.84407	Gmet_3367
tRNA (N7-methyl-G46)-methyltransferase	trmB	2.84017	Gmet_3034
nucleotidyltransferase DUF294, putative		2.83588	Gmet_0738
alpha-amylase family protein		2.83268	Gmet_0833
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		2.82908	Gmet_1701
ribonuclease HII	rnhB	2.82663	Gmet_2865
ComEA-related DNA-binding/uptake protein		2.82363	Gmet_1878
hypothetical protein		2.8199	Gmet_1231
transglutaminase/protease-like domain membrane protein		2.8199	Gmet_1634
ABC transporter, membrane protein		2.81618	Gmet_2405
N-acetylglutamate synthase	argA	2.81512	Gmet_0946
hypothetical protein		2.81362	Gmet_0831
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-18	2.81246	Gmet_0799

ankyrin repeat protein		2.8113	Gmet_2662
bidirectional NAD-reducing hydrogenase, large subunit	hoxL	2.80775	Gmet_1113
efflux pump, RND superfamily, and rRNA methyltransferase, putative	hpN	2.80578	Gmet_2819
outer membrane channel, putative 16S rRNA (2'-O-methyl-C1402)- methyltransferase	rsml	2.80559	Gmet_2831
hypothetical protein		2.80195	Gmet_2861
efflux pump, RND family, outer membrane protein		2.79991	Gmet_0758
ATP-dependent DNA helicase PcrA	pcrA	2.79991	Gmet_1376
membrane protein, putative		2.79641	Gmet_0089
hypothetical protein		2.79495	Gmet_0705
response receiver CheY associated with MCPs of class 34H	cheY34H-2	2.78673	Gmet_2431
membrane protein of unknown function DUF502		2.78673	Gmet_2699
universal stress protein Usp	usp-3	2.78673	Gmet_3498
sterol desaturase-related protein		2.78128	Gmet_3261
SAM-dependent methyltransferase, type 12		2.78019	Gmet_2011
hypothetical protein		2.7783	Gmet_0290
type IV pilus minor pilin PilV	pilV-1	2.77585	Gmet_0734
efflux pump, RND family, membrane fusion protein		2.77585	Gmet_1665
Holliday junction DNA helicase RuvA	ruvA	2.77223	Gmet_0745
type II restriction endonuclease, zinc finger		2.77043	Gmet_1797
transketolase	tkt	2.76719	Gmet_0178
sensor histidine kinase response receiver diguanylate cyclase		2.76421	Gmet_0043
winged-helix heavy metal transcriptional response regulator	czcR	2.76074	Gmet_0528
sensor histidine kinase, GAF and PAS domain-containing 4-hydroxybenzoyl-CoA reductase		2.76026	Gmet_1005
molybdenum cofactor biosynthesis protein, putative	pcmV	2.75967	Gmet_2138
scaffold protein CheW associated with MCPs of class 36H	cheW36H	2.7589	Gmet_1079
lipoprotein, putative		2.75431	Gmet_1966
protein of unknown function DUF3793		2.75431	Gmet_2833
sigma-54-dependent sensor transcriptional regulator, PAS domain-containing		2.74974	Gmet_2109
ADP-heptose--lipopolysaccharide heptosyltransferase, putative		2.74721	Gmet_0585
N-carbamylputrescine amidohydrolase	aguB	2.74203	Gmet_0710
electron transfer flavoprotein-associated cytochrome b and CCG domain pair iron-sulfur cluster-binding oxidoreductase		2.74001	Gmet_2065
TPR domain protein		2.73896	Gmet_0588
dihydrolipoamide dehydrogenase	lpdA-1	2.73762	Gmet_2764

lipoprotein, putative		2.7331	Gmet_0505
heterodisulfide oxidoreductase, CCG domain pair-containing subunit B	hdrB	2.73229	Gmet_3425
cytochrome bd menaquinol oxidase, subunit II	cydB	2.73099	Gmet_1929
DNA mismatch repair protein MutL	mutL	2.72986	Gmet_2053
FliK domain protein		2.72763	Gmet_3160
sensor histidine kinase, PAS domain-containing		2.72574	Gmet_1212
NUDIX hydrolase, MutT family		2.7226	Gmet_1170
integrase		2.7226	Gmet_2278
membrane protein, UPF0118 superfamily		2.71869	Gmet_2050
misacylated tRNA(Pro) deacylase, YbaK/ProX family		2.71367	Gmet_0396
methyl-accepting chemotaxis sensory transducer, class 34H	mcp34H-3	2.71284	Gmet_2423
sensor histidine kinase		2.71011	Gmet_1379
methyl-accepting chemotaxis sensory transducer, class 40H, putative dimer with helix-swapped heme-binding site-containing PAS domain	mcp40H-2	2.70804	Gmet_2939
cyclic diguanylate phosphodiesterase		2.70313	Gmet_2817
membrane protein, putative		2.70063	Gmet_0225
hypothetical protein		2.69868	Gmet_0716
polysaccharide deacetylase and DUF3473 domain protein		2.6967	Gmet_2005
glycosyltransferase, YqgM-like family		2.69542	Gmet_1496
metallophosphoesterase		2.69158	Gmet_0034
DNA polymerase III, alpha subunit	dnaE	2.68595	Gmet_1215
PEP motif-containing protein, putative exosortase substrate		2.68545	Gmet_0748
flotillin band_7_5 domain protein		2.68545	Gmet_0754
electron transfer flavoprotein, alpha subunit	etfA-2	2.68352	Gmet_2066
ABC transporter, ATP-binding protein		2.67962	Gmet_2524
protein of unknown function DUF4150		2.67328	Gmet_0288
ligand-gated TonB-dependent outer membrane channel		2.65454	Gmet_2735
deoxyguanosine triphosphate triphosphohydrolase, putative		2.65371	Gmet_1762
transposase of ISGme7, IS3 family, OrfB		2.65122	Gmet_1183
hypothetical protein		2.65031	Gmet_2490
lipoprotein, putative		2.6413	Gmet_1152
thiolase, putative		2.63951	Gmet_0144
ResB-like family cytochrome c		2.63801	Gmet_0578
membrane-bound O-acyltransferase, putative		2.62558	Gmet_2338
protein of unknown function UPF0102		2.62558	Gmet_2864
TPR domain protein		2.62167	Gmet_0728
hypothetical protein		2.61973	Gmet_2981
NADH dehydrogenase I, G subunit	nuoG-2	2.61793	Gmet_0159

hypothetical protein		2.61735	Gmet_0591
hypothetical protein		2.61681	Gmet_0535
CHAD domain protein		2.61681	Gmet_0879
selenocysteine lyase	sufS	2.61681	Gmet_2006
rhodanese homology domain pair protein		2.61519	Gmet_0531
efflux pump, RND family, outer membrane lipoprotein		2.6102	Gmet_1666
phosphoribosylamine--glycine ligase	purD	2.60571	Gmet_2904
copper-translocating P-type ATPase	copA	2.60411	Gmet_2772
antitoxin, Phd family		2.60231	Gmet_0678
glycine cleavage system lipoyl carrier			
protein GcvH	gcvH	2.60231	Gmet_3154
ABC transporter, membrane protein, ABC-2 family		2.59186	Gmet_1406
metal-dependent hydrolase, beta-lactamase superfamily			
II		2.59186	Gmet_3123
phosphoenolpyruvate carboxylase		2.59143	Gmet_0304
pyruvate dehydrogenase complex, E1			
protein, beta subunit	pdhB	2.58466	Gmet_2753
glycosyltransferase		2.5832	Gmet_2014
protein tyrosine/serine phosphatase		2.58083	Gmet_0085
metal-dependent phosphohydrolase, putative		2.58083	Gmet_1107
NAD(P)H:quinone oxidoreductase			
flavoprotein Wrba	wrbA	2.57374	Gmet_0771
ABC transporter, ATP-binding protein	ybhF-N2	2.57374	Gmet_3463
DUF748 repeat protein		2.57073	Gmet_2829
phage tail sheath protein, putative		2.57035	Gmet_1128
SAM-dependent methyltransferase		2.56809	Gmet_2876
transposase, IS110 family		2.56568	Gmet_2565
NUDIX hydrolase		2.56434	Gmet_3309
menaquinol oxidoreductase complex Cbc6,			
membrane protein subunit, putative	cbcQ	2.56434	Gmet_3585
CMP-3-deoxy-D-manno-octulosonate--lipid			
A tetraacyldisaccharide 3-deoxy-D-manno-			
octulosonate transferase	kdtA	2.56214	Gmet_2348
cytochrome c nitrite and sulfite reductase,			
catalytic subunit lipoprotein	nrfA-1	2.5604	Gmet_0294
NADP-dependent menaquinol:acrylyl-CoA			
oxidoreductase	acul	2.55859	Gmet_0804
electron transfer flavoprotein-associated cytochrome b			
and CCG domain pair iron-sulfur cluster-binding			
oxidoreductase		2.55429	Gmet_1714
hypothetical protein		2.54573	Gmet_0311
methyl-accepting chemotaxis sensory			
transducer, class 40H	mcp40H-6	2.54573	Gmet_0821
hypothetical protein		2.54573	Gmet_3636
phosphoglycosyl-diphosphate--polypropenyl- phosphate			
phosphoglycosyltransferase, putative		2.54069	Gmet_1405
hypothetical protein		2.53957	Gmet_1997

membrane protein DUF81, putative		2.5237	Gmet_1534
benzoyl-CoA reductase electron transfer			
protein, putative	bamH	2.51825	Gmet_2080
sensor histidine kinase, HAMP domain-containing		2.51522	Gmet_0527
ResC/HemX-like cytochrome c		2.5092	Gmet_0141
zinc-dependent peptidase, M16 family		2.5092	Gmet_2529
primosomal protein N', ATP-dependent			
helicase	priA	2.50856	Gmet_3337
NACHT domain and WD40 repeat protein		2.50546	Gmet_1213
outer membrane channel, putative		2.5047	Gmet_2438
fatty acyltransferase-like lipase, putative		2.5047	Gmet_2594
cytochrome c		2.502	Gmet_2990
sensor histidine kinase, GAF domain-containing		2.50159	Gmet_1993
iron/manganese-dependent transcriptional			
regulator	ideR	2.49797	Gmet_2442
hypothetical protein		2.49797	Gmet_2954
phosphopantothenylcysteine decarboxylase			
and phosphopantothenate--cysteine ligase	coaBC	2.49484	Gmet_2673
glucan phosphorylase		2.493	Gmet_2767
oligoendopeptidase F	pepF	2.49128	Gmet_1295
hypothetical protein		2.49128	Gmet_2516
membrane protein, putative		2.48063	Gmet_1401
hypothetical protein		2.47798	Gmet_2361
divalent manganese/zinc ABC transporter, membrane			
protein		2.47534	Gmet_0493
hypothetical protein		2.47358	Gmet_3590
butyrate kinase	buk-1	2.45475	Gmet_2106
aminotransferase, AHBA_syn family		2.44989	Gmet_2016
peptidoglycan L,D-transpeptidase lipoprotein, YkuD			
family, TPR domain-containing		2.44742	Gmet_3487
dihydrolipoamide dehydrogenase	lpdA-2	2.4228	Gmet_1896
multicopper oxidase		2.42038	Gmet_2155
lipoprotein, putative		2.4169	Gmet_3626
FemAB superfamily protein		2.41522	Gmet_2017
hypothetical protein		2.41328	Gmet_3457
hypothetical protein		2.41012	Gmet_2967
exopolysaccharide synthesis membrane			
protein H (exosortase)	epsH	2.40822	Gmet_2003
thiol:disulfide interchange protein	dsbD	2.40696	Gmet_0516
lipoprotein release ABC transporter, ATP-			
binding protein	lpdD-2	2.40696	Gmet_1518
adenylyltransferase, putative		2.40289	Gmet_2007
hypothetical protein		2.40068	Gmet_2657
hydrolase, putative	hpnK	2.39317	Gmet_2415
helix-turn-helix transcriptional regulator, LysR family		2.38818	Gmet_0530
respiratory nitrate reductase, cytochrome c	narC-1	2.37717	Gmet_0328

lipoprotein, putative		2.3717	Gmet_1990
hypothetical protein		2.36965	Gmet_2957
bidirectional NAD-reducing hydrogenase,			
diaphorase subunit	hoxE	2.36702	Gmet_1109
lipoprotein, putative		2.35216	Gmet_1299
ribosomal protein S12			
methylthiotransferase	rimO	2.35216	Gmet_3205
lipoprotein, putative		2.35135	Gmet_0322
ATPase DUF815, putative		2.34893	Gmet_2571
hypothetical protein		2.34365	Gmet_0293
hypothetical protein		2.34248	Gmet_3299
hypothetical protein		2.33928	Gmet_0364
SAM-dependent methyltransferase, putative		2.33928	Gmet_2978
cytochrome bd menaquinol oxidase,			
subunit I	cydA	2.33607	Gmet_1930
2-methylcitrate dehydratase	prpD	2.33328	Gmet_1123
SpoVR-like family protein		2.33128	Gmet_0032
sodium/phosphate symporter, putative		2.32863	Gmet_1829
alanine dehydrogenase	ald	2.31543	Gmet_1099
sensor histidine kinase, PAS domain-containing		2.31149	Gmet_0500
asparaginyl-tRNA synthetase	asnS	2.30131	Gmet_2412
sigma-54-dependent transcriptional response regulator		2.29819	Gmet_1058
acyl-CoA--carboxylate coenzyme A transferase and			
acetyltransferase, GNAT family		2.29663	Gmet_2142
ABC transporter, ATP-binding protein	ybhF-C2	2.29663	Gmet_3462
MatE-like domain efflux pump		2.29508	Gmet_2508
oxidoreductase, short-chain dehydrogenase/reductase			
family		2.29197	Gmet_2059
pyridoxamine-5'-phosphate oxidase-related FMN-binding			
protein		2.29197	Gmet_2650
hypothetical protein		2.29197	Gmet_2755
nicotinate/nicotinamide mononucleotide			
adenylyltransferase	nadD	2.29197	Gmet_3200
hypothetical protein		2.29197	Gmet_3583
radical SAM domain iron-sulfur cluster-			
binding oxidoreductase, TIGR01212 family	yhcC-1	2.28732	Gmet_3163
ATP-dependent protease, putative		2.28127	Gmet_2746
sensor histidine kinase, HAMP domain-containing		2.28093	Gmet_0701
CRISPR-associated endodeoxyribonuclease			
Cas1	cas1	2.27514	Gmet_1072
ankyrin/PDZ domain protein		2.27462	Gmet_2658
ABC transporter, membrane protein	ybhR-1	2.27271	Gmet_0655
ribonucleoside diphosphate reductase,			
adenosylcobalamin-dependent, putative		2.27143	Gmet_1910
D-isomer-specific 2-hydroxyacid dehydrogenase, NAD-			
binding protein		2.26889	Gmet_0106
hypothetical protein		2.26381	Gmet_3068

efflux pump, RND family, membrane fusion lipoprotein		2.24993	Gmet_2519
sigma-54-dependent transcriptional			
response regulator	bamW	2.24939	Gmet_2145
YgdL family protein		2.24617	Gmet_3237
carboxynorspermidine/carboxyspermidine			
decarboxylase	nspC	2.24241	Gmet_0903
branched-chain 2-oxoacid dehydrogenase			
complex, E1 protein, alpha subunit, putative	bkdA	2.24207	Gmet_2509
protein of unknown function DUF58		2.24117	Gmet_1633
TIM barrel protein, AP endonuclease family 2/xylose			
isomerase-like family		2.24054	Gmet_0064
integrase domain protein		2.23974	Gmet_2803
TPR domain protein		2.23823	Gmet_0584
protein of unknown function DUF3124		2.23718	Gmet_0269
ABC transporter, periplasmic substrate-binding protein,			
aliphatic sulfonates		2.23718	Gmet_1901
serine protease with TPR domains, putative		2.2368	Gmet_3052
ADP-heptose--lipopolysaccharide heptosyltransferase		2.22986	Gmet_2331
hypothetical protein		2.21937	Gmet_0757
undecaprenyl-diphospho-4-amino-4-deoxy-			
L- arabinose--lipid A 4-amino-4-deoxy-L-			
arabinose transferase, putative	arnT	2.21728	Gmet_0887
acyl carrier protein phosphodiesterase,			
putative	acpH	2.21642	Gmet_2389
HEAT-like repeat-containing protein		2.21174	Gmet_2816
CRISPR-associated nuclease and helicase			
Cas3	cas3	2.20775	Gmet_1064
ABC transporter, ATP-binding protein		2.20725	Gmet_2542
menaquinol oxidoreductase complex Cbc6,			
iron-sulfur cluster-binding subunit, putative	cbcO	2.20177	Gmet_0538
hypothetical protein		2.19841	Gmet_1795
hypothetical protein		2.19088	Gmet_1836
acyl-CoA thioesterase		2.19088	Gmet_3556
nicotinamidase		2.18727	Gmet_2374
NADH dehydrogenase I, N subunit	nuoN-2	2.18624	Gmet_0172
exodeoxyribonuclease V, beta subunit	recB	2.18607	Gmet_1893
efflux pump, RND family, inner membrane protein		2.18008	Gmet_3127
membrane protein, putative		2.17881	Gmet_2381
sensor histidine kinase, HAMP domain-containing		2.1747	Gmet_1667
5-carboxyamino-1-(5-			
phosphoribosyl)imidazole carboxymutase	purE	2.1587	Gmet_2903
lipoprotein release ABC transporter,			
membrane protein	lolE-2	2.15531	Gmet_1517
aconitate hydratase, putative		2.15202	Gmet_2763
glyoxalase/bleomycin resistance protein/dioxygenase			
superfamily protein		2.14813	Gmet_2450
heterodisulfide oxidoreductase, iron-sulfur	hdrE	2.14603	Gmet_3430

cluster-binding subunit E				
cysteine synthase A	cysK-2	2.13997	Gmet_1558	
outer membrane lipoprotein carrier/sorting protein LolA		2.13764	Gmet_1698	
glycosyltransferase		2.13195	Gmet_2878	
4-oxobutanoate dehydrogenase	gabD	2.13168	Gmet_3395	
ribonuclease D, putative		2.1244	Gmet_3389	
acyl-CoA synthetase, AMP-forming		2.11963	Gmet_2020	
oxidoreductase, short-chain dehydrogenase/reductase family		2.11688	Gmet_0361	
acyl-CoA--carboxylate coenzyme A transferase, family III		2.10661	Gmet_1711	
hypothetical protein		2.10321	Gmet_1373	
aminopeptidase, putative		2.09827	Gmet_1720	
zinc-dependent hydrolase		2.09642	Gmet_2141	
thiolase	bamN	2.09089	Gmet_2074	
octanoyl-(acyl carrier protein)--protein				
octanoyltransferase	lipB	2.08966	Gmet_2747	
phosphoribosylaminoimidazole carboxylase-related protein		2.08774	Gmet_0193	
excinuclease ABC family protein		2.08763	Gmet_2580	
hypothetical protein		2.08294	Gmet_0276	
membrane protein, major facilitator superfamily		2.0726	Gmet_0806	
sensor histidine kinase		2.06716	Gmet_3432	
metallophosphoesterase		2.06129	Gmet_2651	
oxidoreductase, short-chain dehydrogenase/reductase family	pcmM	2.05352	Gmet_2129	
D-alanyl-D-alanine carboxypeptidase-related and peptidoglycan-binding domain protein		2.05141	Gmet_0285	
response regulator		2.04977	Gmet_1378	
endonuclease, TnsA family		2.04977	Gmet_3046	
hypothetical protein		2.0479	Gmet_0689	
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-3	2.04739	Gmet_3087	
molybdopterin sulfurtransferase MOSC domain protein	mosC-1	2.04649	Gmet_0302	
sensor histidine kinase		2.04453	Gmet_2454	
conjugal transfer protein TrbL		2.02774	Gmet_A3573	
menaquinol oxidoreductase complex Cbc4, iron-sulfur cluster-binding subunit, putative	cbcT-2	2.02561	Gmet_0326	
cytochrome c		2.02458	Gmet_0170	
lipoprotein cytochrome c		2.02377	Gmet_0121	
efflux pump, RND family, membrane fusion protein	ybhG-1	2.02377	Gmet_0659	
metal-dependent phosphohydrolase, HDOD domain-containing		2.02216	Gmet_0035	
PAS domain protein		2.01735	Gmet_0298	
tRNA (5-carboxymethylaminomethyl-2-thio-U34) synthesis sulfur carrier protein	tusA-1	2.01735	Gmet_1571	

rubredoxin reductase, selenocysteine-containing		2.01095	Gmet_1148
lipoprotein, putative		2.00537	Gmet_1965
SAM-dependent methyltransferase, putative		2.00458	Gmet_2970
protein of unknown function UPF0261		1.99824	Gmet_2110
membrane protein, putative		1.99508	Gmet_1970
SAM-dependent methyltransferase, putative		1.99282	Gmet_2791
SAM-dependent methyltransferase, type 11		1.99192	Gmet_1806
membrane protein, putative		1.97004	Gmet_2977
serine protease inhibitor, Kunitz family		1.96076	Gmet_2665
glutaryl-CoA dehydrogenase	bamM	1.94971	Gmet_2075
sensor diguanylate cyclase, GAF domain-containing		1.94849	Gmet_1298
acyl carrier protein	acpP-3	1.94239	Gmet_2021
hypothetical protein		1.94239	Gmet_2090
m multicopper oxidase, type 2		1.93538	Gmet_2154
response receiver histidine kinase		1.9351	Gmet_1219
murein hydrolase-controlling membrane			
protein LrgB	lrgB	1.92424	Gmet_1204
p-cresol methylhydroxylase, alpha subunit	pcmJ	1.92147	Gmet_2126
hypothetical protein		1.91974	Gmet_1145
nitrogenase molybdenum-iron protein,			
alpha chain	nifD	1.91824	Gmet_0663
dethiobiotin synthetase	bioD	1.91227	Gmet_1581
hypothetical protein		1.90632	Gmet_0449
ATPase, AAA family		1.9047	Gmet_1133
cytochrome c		1.90187	Gmet_0534
response receiver sensor protein serine/threonine			
phosphatase, PP2C family, PAS and PAS domain-			
containing		1.90187	Gmet_2818
membrane-bound serine protease NfeD,			
long form	nfeD	1.90147	Gmet_0813
neutral zinc metallopeptidase, putative		1.8987	Gmet_2726
glucose-6-phosphate isomerase	pgi	1.89676	Gmet_2458
hypothetical protein		1.89342	Gmet_0675
response receiver		1.88861	Gmet_2789
membrane protein, putative		1.88861	Gmet_2877
hypothetical protein		1.87984	Gmet_0448
hypothetical protein		1.87693	Gmet_0074
menaquinone biosynthesis decarboxylase, putative		1.87461	Gmet_3392
aromatic catabolism-like sigma-54-dependent			
transcriptional regulator, XylR and V4R domain-			
containing		1.87361	Gmet_2116
SAM-dependent methyltransferase		1.87113	Gmet_2793
hypothetical protein		1.86765	Gmet_1494
UDP-glucose--lipopolysaccharide core heptose I 4-beta-			
glucosyltransferase		1.86534	Gmet_2344
iron-sulfur cluster repair protein ScdA	scdA	1.86534	Gmet_3494

hypothetical protein		1.85385	Gmet_0792
hypothetical protein		1.85385	Gmet_0793
hypothetical protein		1.85004	Gmet_0287
magnesium-dependent deoxyribonuclease, TatD family		1.84813	Gmet_3236
hypothetical protein		1.83677	Gmet_1440
hypothetical protein		1.83536	Gmet_1144
ABC transporter, membrane protein of unknown function			
DUF140		1.83113	Gmet_1271
4-hydroxybenzoyl-CoA reductase iron-sulfur			
cluster-binding subunit, putative	pcmS	1.8199	Gmet_2135
menaquinol oxidoreductase complex Cbc4,			
iron-sulfur cluster-binding subunit, putative	cbcT-1	1.8199	Gmet_3519
lipoprotein cytochrome c		1.81793	Gmet_0910
uronate isomerase, putative		1.81685	Gmet_0451
translation elongation factor P-lysyl-lysine			
2,3-aminomutase	yjeK	1.81571	Gmet_1840
periplasmically oriented, membrane-bound			
[NiFe]-hydrogenase maturation protease	hyaP	1.81154	Gmet_3329
helix-turn-helix transcriptional regulator, IclR family		1.80876	Gmet_2064
enoyl-CoA hydratase/isomerase		1.80322	Gmet_2071
O-acetyl-ADP-ribose deacetylase	ymdB	1.80322	Gmet_3007
hypothetical protein		1.80138	Gmet_1140
sigma-54-dependent sensor transcriptional regulator,			
PAS domain-containing		1.80086	Gmet_3285
hypothetical protein		1.79495	Gmet_1473
HAD superfamily hydrolase		1.79331	Gmet_0226
hypothetical protein		1.79221	Gmet_0281
metal-dependent phosphohydrolase, HDc domain-containing		1.79221	Gmet_2382
exopolysaccharide synthesis membrane			
protein H (exosortase) and periplasmic			
protein I	epsHI	1.78947	Gmet_1503
formate dehydrogenase accessory protein FdhD		1.78673	Gmet_2076
sodium/solute symporter, GAF and PP2C family protein			
serine/threonine phosphatase domain protein		1.78542	Gmet_1230
lipoprotein, putative		1.78469	Gmet_1996
type VI secretion system needle syringe			
protein Tssl	tssl	1.77449	Gmet_0286
resolvase-like serine recombinase		1.77043	Gmet_3143
S1 RNA-binding domain-containing			
transcriptional accessory protein	tex	1.76757	Gmet_0182
outer membrane channel		1.76034	Gmet_1995
SAM-dependent methyltransferase, putative		1.75031	Gmet_0721
glycosyltransferase		1.73837	Gmet_1499
argininosuccinate lyase	argH	1.72574	Gmet_0209
multicopper oxidase, putative		1.72457	Gmet_2583
lipoprotein, putative		1.7226	Gmet_2979

sigma-54-dependent transcriptional response regulator		1.71634	Gmet_2453
SAM-dependent methyltransferase, type 11		1.70701	Gmet_2958
relaxase/mobilization nuclease domain protein MobA		1.70701	Gmet_A3574
phosphate ABC transporter, membrane			
protein PstA	pstA	1.70185	Gmet_2703
aerobic-type carbon monoxide dehydrogenase, large			
subunit-like protein		1.7012	Gmet_3489
efflux pump, RND family, inner membrane protein		1.69018	Gmet_3509
multidrug resistance efflux pump, RND family, inner			
membrane protein EmrB		1.68879	Gmet_1374
sigma-54-dependent transcriptional response regulator		1.6824	Gmet_1082
lipoprotein, putative		1.68202	Gmet_2628
glycosyltransferase, CESA-like subfamily		1.67631	Gmet_2008
ATPase, AAA family		1.66685	Gmet_0033
hypothetical protein		1.6612	Gmet_0214
laccase family multicopper oxidase	ompB	1.6588	Gmet_2163
NADH dehydrogenase I, L subunit	nuoL-2	1.65659	Gmet_0168
outer membrane channel, putative		1.65659	Gmet_1193
ABC transporter, membrane protein		1.65371	Gmet_2406
iron-sulfur cluster-binding oxidoreductase,			
CCG domain pair-containing, putative			
benzoyl-CoA reductase electron transfer			
protein	bamD	1.64625	Gmet_2085
protein of unknown function DUF1638		1.64625	Gmet_2749
sensor histidine kinase response receiver, PAS and GAF			
domain-containing		1.64554	Gmet_2824
aromatic catabolism-like sigma-54-dependent			
transcriptional regulator, XylR and V4R domain-		1.63391	Gmet_1542
containing			
hypothetical protein		1.63146	Gmet_0894
xanthosine/inosine triphosphate			
pyrophosphohydrolase	rdgB	1.62411	Gmet_1875
periplasmic protein Ycel		1.62411	Gmet_3449
aldehyde dehydrogenase family 11 protein		1.62345	Gmet_0789
helix-turn-helix transcriptional regulator, LysR family		1.61681	Gmet_0186
cytochrome c peroxidase	macA	1.61473	Gmet_3091
D-fructose 6-kinase	mak	1.61196	Gmet_2805
hypothetical protein		1.60231	Gmet_1963
peptidoglycan L,D-transpeptidase, YkuD family, LysM			
domain-containing		1.59751	Gmet_2980
hypothetical protein		1.59368	Gmet_1142
electron transfer flavoprotein, beta subunit	etfB-5	1.59081	Gmet_1525
sensor histidine kinase response receiver		1.58795	Gmet_2998
hypothetical protein		1.58592	Gmet_2655
menaquinol oxidoreductase complex ACIII,			
cytochrome c subunit	actE	1.5832	Gmet_1814
ribonuclease Z-related hydrolase		1.57374	Gmet_0724

protein of unknown function DUF2320		1.56317	Gmet_1445
sensor diguanylate cyclase/phosphodiesterase		1.56317	Gmet_2629
transporter, Bcr/CflA subfamily		1.5492	Gmet_1682
hypothetical protein		1.54573	Gmet_0272
membrane protein, major facilitator superfamily		1.54226	Gmet_3221
lipoprotein cytochrome c		1.53743	Gmet_1647
sensor histidine kinase, HAMP domain-containing		1.53467	Gmet_2737
flavodoxin, putative		1.53192	Gmet_2647
carbamyl-phosphate synthetase, carbamate			
kinase-like protein	cpkA	1.53192	Gmet_2786
GAF domain protein, putative		1.5237	Gmet_2614
cyclic diguanylate phosphodiesterase		1.51825	Gmet_1560
potassium-transporting ATPase, B subunit	kdpB	1.51615	Gmet_2434
hypothetical protein		1.51462	Gmet_1147
SAM-dependent methyltransferase, putative		1.49797	Gmet_0136
hypothetical protein		1.49663	Gmet_1130
lipoprotein, putative		1.49462	Gmet_2627
hypothetical protein		1.49128	Gmet_0824
pyruvate dehydrogenase complex, E2			
protein, dihydrolipoamide acetyltransferase	aceF	1.49128	Gmet_2752
hypothetical protein		1.48594	Gmet_2025
peptide ABC transporter, ATP-binding protein		1.4824	Gmet_0847
biotin synthase	bioB	1.46481	Gmet_1582
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		1.44168	Gmet_0245
DNA ligase, NAD-dependent	ligA	1.43881	Gmet_2728
glycosyltransferase Hpnl	hpnl	1.43881	Gmet_2815
cytochrome c		1.41962	Gmet_1210
helix-turn-helix transcriptional regulator, ArsR family		1.41328	Gmet_0522
CRISPR-associated protein CasD	cas5d	1.41328	Gmet_1065
UDP-N-acetylglucosamine 4,6-dehydratase			
and UDP-2-acetamido-2,6-dideoxy-alpha-D-			
xylo-4-hexulose 5-epimerase	pseB	1.40906	Gmet_0458
peptidoglycan-binding outer membrane protein, OMP_b-			
brl, OmpA and OmpA domain-containing		1.40696	Gmet_0775
lipid A core-O antigen ligase-related protein		1.40068	Gmet_2009
ABC transporter, periplasmic substrate-binding protein		1.39817	Gmet_2736
sigma-54-dependent transcriptional response regulator		1.39754	Gmet_0702
nodulin 21-like membrane protein		1.39442	Gmet_0169
hypothetical protein		1.39442	Gmet_2659
membrane protein, FUSC domain-containing, putative		1.39271	Gmet_2060
hypothetical protein		1.38405	Gmet_0353
hypothetical protein		1.36352	Gmet_0869
SAM-dependent methyltransferase, putative		1.36003	Gmet_2663
succinyl-CoA synthetase, alpha subunit	sucD-2	1.35377	Gmet_2068
cytochrome c		1.3527	Gmet_2168

iron-sulfur cluster-binding oxidoreductase		1.35135	Gmet_3185
hypothetical protein		1.35025	Gmet_0022
hypothetical protein		1.33928	Gmet_0228
ADP-ribosyl-(nitrogenase)-activating glycohydrolase	draG	1.33447	Gmet_0680
zinc metalloendopeptidase, M23 family		1.33328	Gmet_1350
transcriptional response regulator LytT	lytT	1.33328	Gmet_2697
hypothetical protein		1.31543	Gmet_2891
serine phosphatase		1.31149	Gmet_2062
tRNA (5-oxyacetic acid-U34)-carboxyltransferase/methyltransferase	cmoA	1.30953	Gmet_2532
hypothetical protein		1.30757	Gmet_1115
zinc-dependent amidohydrolase, putative		1.30757	Gmet_3443
response receiver CheY associated with MCPs of class 44H	cheY44H	1.30365	Gmet_3211
oxidoreductase related to nitroreductase, putative		1.29975	Gmet_3446
hypothetical protein		1.29197	Gmet_0020
lipoprotein, putative		1.29197	Gmet_A3643
glycosyltransferase, WbnK-like family		1.28423	Gmet_1498
ABC transporter, membrane protein	ybhR-2	1.28423	Gmet_3460
hypothetical protein		1.27949	Gmet_1484
protein glutamate methyltransferase CheB associated with MCPs of classes 40H and 40+24H, response receiver domain-containing citrate synthase	cheB64H-2	1.27654	Gmet_2826
adenosine-specific tRNA nucleotidyltransferase	ccaA	1.27544	Gmet_1124
ABC transporter, membrane protein	ybhS-1	1.27052	Gmet_1578
PEP motif-containing protein, putative exosortase substrate		1.26889	Gmet_0656
nucleoside 3'/5'-monophosphate phosphatase and short-chain exopolyphosphatase SurE	surE	1.26889	Gmet_2512
hypothetical protein		1.26317	Gmet_1419
efflux pump, RND family, outer membrane protein homocitrate synthase	nifV	1.25748	Gmet_3629
cyclohexa-1,5-dienecarbonyl-CoA hydratase	bamR	1.24899	Gmet_1190
23S rRNA pseudouridine 2605 synthase	rluB	1.24617	Gmet_0692
cyclic diguanylate phosphodiesterase		1.24054	Gmet_2150
protein of unknown function DUF2950		1.22936	Gmet_1217
hypothetical protein		1.2275	Gmet_1365
exopolysaccharide synthesis membrane protein H (exosortase)		1.21937	Gmet_1198
hypothetical protein		1.21274	Gmet_3640
hypothetical protein		1.21054	Gmet_1448
lipoprotein, putative		1.21054	Gmet_2022
		1.20664	Gmet_3059
		1.20177	Gmet_3510

UDP-glucose/UDP-N-acetylglucosamine 4-epimerase	galE-2	1.19741	Gmet_1486
phosphoenolpyruvate synthase	ppsA	1.18547	Gmet_0770
iron-sulfur cluster-binding flavodoxin		1.18547	Gmet_1508
formamidopyrimidine-DNA glycosylase	mutM	1.18008	Gmet_1206
sensor histidine kinase	bamV	1.17769	Gmet_2146
hypothetical protein		1.17088	Gmet_2963
hypothetical protein		1.16579	Gmet_3060
phage tail spike protein, putative		1.16402	Gmet_1138
glycosyltransferase		1.16402	Gmet_2342
ferredoxin and NADH nitroreductase domain protein		1.1587	Gmet_2995
O-methylpimelyl-(acyl carrier protein)			
methylesterase	bioH	1.15341	Gmet_0843
glycine cleavage system P protein, subunit 2	gcvP2	1.14063	Gmet_3152
translation elongation factor G	fusA-2	1.13973	Gmet_2521
protein of unknown function, DUF490-containing		1.13973	Gmet_2809
futalosine synthase, putative	mqnA	1.12204	Gmet_0986
PEP motif-containing protein, putative exosortase substrate		1.11688	Gmet_2725
outer membrane channel, putative		1.11345	Gmet_2624
metal-dependent hydrolase, subgroup D		1.11003	Gmet_1645
lipoate synthase	lipA	1.09642	Gmet_3150
CRISPR-associated protein Csd2	csd2	1.09135	Gmet_1067
response receiver CheY	cheY-11	1.08629	Gmet_0778
PEP motif-containing outer membrane channel, putative exosortase substrate		1.08025	Gmet_0783
phenylacetate--coenzyme A ligase	paaK-3	1.06958	Gmet_0950
4-hydroxybenzoyl-CoA reductase			
flavoprotein subunit	pcmR	1.06626	Gmet_2134
hypothetical protein		1.06427	Gmet_1141
nitrogenase molybdenum-iron cofactor biosynthesis radical SAM domain iron-sulfur cluster-binding oxidoreductase		1.06129	Gmet_0681
methyl-accepting chemotaxis sensory transducer, class 34H	mcp34H-6	1.06129	Gmet_2424
hypothetical protein		1.05305	Gmet_3399
CRISPR-associated protein Csd1	csd1	1.04895	Gmet_1066
polysaccharide chain length determinant protein		1.03115	Gmet_1446
hydrolase or acyltransferase, alpha/beta fold family		1.027	Gmet_0726
polyphosphate-dependent ADP kinase		1.01735	Gmet_1092
heme-binding sensor globin domain protein		1.01255	Gmet_0338
2-dehydropantoate 2-reductase	panE	1.00299	Gmet_2643
menaquinol oxidoreductase complex ACIII, menaquinol-binding membrane protein			
subunit ActC	actC	0.99508	Gmet_1812
hypothetical protein		0.9935	Gmet_1385
HAD superfamily hydrolase		0.99192	Gmet_1630

RHS repeat protein		0.98878	Gmet_1475
ATP-dependent helicase HrpB	hrpB	0.98621	Gmet_1349
cytochrome c nitrite and sulfite reductase, menaquinol-oxidizing subunit	nrfH	0.97938	Gmet_0295
phenol transport outer membrane protein, putative protein of unknown function, DUF2276-containing sugar fermentation stimulation protein	sfsA	0.97004	Gmet_2107
flavodoxin, putative hypothetical protein		0.97004	Gmet_2394
transcriptional regulator, Crp/Fnr family	fnr-2	0.96694	Gmet_1127
radical SAM domain iron-sulfur cluster-binding oxidoreductase, DUF3641-containing biosynthetic peptidoglycan transglycosylase		0.95155	Gmet_1106
menaquinol oxidoreductase complex Cbc4, cytochrome c subunit	cbcS-1	0.93102	Gmet_2920
dTDP-4-dehydro-6-deoxyglucose aminotransferase protein of unknown function DUF1847		0.93026	Gmet_0750
periplasmic substrate-binding sensor protein, putative methyl-accepting chemotaxis sensory transducer, class 40H, Cache_2 domain-containing	mcp40H-11	0.92875	Gmet_2457
type IV pilus minor pilin PilX	pilX-1	0.91974	Gmet_3403
hypothetical protein		0.91525	Gmet_3518
cytochrome p460, contains 1 heme-binding site		0.90632	Gmet_2332
hypothetical protein		0.88861	Gmet_1452
lipoprotein cytochrome c		0.88861	Gmet_2626
PhnB domain protein		0.88861	Gmet_2754
respiratory nitrate reductase, iron-sulfur cluster-binding beta subunit	narH-2	0.88642	Gmet_2185
metal-dependent hydrolase superfamily protein		0.87984	Gmet_2623
phospholipase D superfamily protein		0.87693	Gmet_1021
ferredoxin-dependent glutamate synthase	gltS	0.85815	Gmet_0087
hypothetical protein		0.85671	Gmet_0078
hypothetical protein		0.8548	Gmet_0147
hypothetical protein		0.84244	Gmet_0717
hypothetical protein		0.83193	Gmet_1465
phosphate ABC transporter, periplasmic phosphate-binding protein	pstS	0.82831	Gmet_2595
serine protease, subtilase family		0.8241	Gmet_2701
peptidoglycan L,D-transpeptidase, YkuD family		0.80876	Gmet_1195
succinyl:benzoate coenzyme A transferase		0.78673	Gmet_2505
L-threonine aldolase, low-specificity	ItaE	0.78019	Gmet_2054
iron-sulfur cluster-binding oxidoreductase, putative benzoyl-CoA reductase electron transfer protein	bamC-2	0.77856	Gmet_3503
hypothetical protein		0.76235	Gmet_1803
protein of unknown function DUF208		0.75031	Gmet_1477
		0.74632	Gmet_0752

hypothetical protein		0.74632	Gmet_1479
response receiver-modulated cyclic diguanylate phosphodiesterase		0.74632	Gmet_2999
oxidoreductase, putative		0.72784	Gmet_0450
hypothetical protein		0.7226	Gmet_0499
nitrogenase molybdenum-iron cofactor biosynthesis protein NifEN	nifEN	0.7226	Gmet_0669
menaquinol oxidoreductase complex Cbc3, cytochrome b subunit, putative	cbcW	0.7226	Gmet_1923
polyferredoxin, putative benzoyl-CoA reductase electron transfer protein	bamE	0.71833	Gmet_2084
hypothetical protein		0.71478	Gmet_0102
ABC transporter, membrane protein	ybhS-2	0.71478	Gmet_3461
sigma 54-dependent transcriptional regulator, GAF domain-containing		0.70959	Gmet_2223
hypothetical protein		0.69927	Gmet_1056
nitroreductase-like family 3 protein		0.69927	Gmet_2835
cobalt ABC transporter, membrane protein CbiN	cbiN	0.69158	Gmet_0473
succinate dehydrogenase/fumarate reductase, type E, flavoprotein subunit	sdhA	0.68138	Gmet_0308
ankyrin repeat protein		0.6612	Gmet_2661
4-hydroxybenzoyl-CoA reductase subunit	pcmT	0.65933	Gmet_2136
hypothetical protein		0.64625	Gmet_1136
outer membrane surface protein		0.59272	Gmet_2808
sigma-54-dependent transcriptional regulator		0.59081	Gmet_0088
adenosylcobalamin-5'-phosphate phosphatase, putative	cobC	0.58795	Gmet_0469
membrane protein of unknown function DUF401		0.58439	Gmet_2554
hypothetical protein		0.58083	Gmet_0908
glutamine--fructose-6-phosphate aminotransferase	glmS-2	0.57846	Gmet_1487
electron transfer flavoprotein, alpha subunit	etfA-9	0.57846	Gmet_3301
sensor histidine kinase, Cache_1, HAMP, PAS and PAS domain-containing		0.57091	Gmet_3478
voltage-gated chloride channel, CBS domain pair-containing, putative		0.56903	Gmet_3470
GTPase EngB	engB	0.56669	Gmet_0465
cation-translocating P-type ATPase		0.55792	Gmet_3497
glucose-1-phosphate adenylyltransferase		0.55617	Gmet_2768
hypothetical protein		0.51825	Gmet_0305
transposase of ISGme8, IS110 family		0.51372	Gmet_1143
membrane protein, major facilitator superfamily		0.50807	Gmet_0223
hypothetical protein		0.5047	Gmet_0131
NADPH:quinone oxidoreductase family protein		0.5047	Gmet_0231
(R)-benzylsuccinate synthase, alpha subunit	bssA	0.49295	Gmet_1539

riboflavin synthase	ribE	0.48461	Gmet_1625
pyruvate dehydrogenase complex, E1			
protein, alpha subunit	pdhA	0.4824	Gmet_2760
efflux pump, RND family, outer membrane protein		0.47798	Gmet_3507
3'-to-5' exonuclease, putative		0.47138	Gmet_3055
respiratory nitrate reductase,			
molybdopterin-binding alpha subunit	narG-2	0.47078	Gmet_1020
proton/nitrate symporter	narK	0.46481	Gmet_0333
CGGC domain protein		0.46481	Gmet_3511
acyltransferase, left-handed parallel beta-helix			
(hexapeptide repeat) family		0.45826	Gmet_2333
maltooligosyltrehalose synthase		0.45754	Gmet_3468
electron transfer flavoprotein-associated cytochrome b			
and CCG domain pair iron-sulfur cluster-binding			
oxidoreductase		0.45609	Gmet_2070
helix-turn-helix SAM-dependent methyltransferase		0.44311	Gmet_1733
hypothetical protein		0.43559	Gmet_2996
flavodoxin, putative		0.43238	Gmet_1815
MgIA-related GTPase		0.42599	Gmet_3475
hypothetical protein		0.40068	Gmet_1132
hypothetical protein		0.35135	Gmet_0095
phenylphosphate carboxylase, delta subunit		0.33928	Gmet_2112
p-hydroxybenzaldehyde dehydrogenase,			
putative	pcmO	0.33627	Gmet_2131
DHH domain phosphoesterase, putative		0.33527	Gmet_1877
aerobic-type carbon monoxide dehydrogenase, large			
subunit-like protein		0.32929	Gmet_0837
protein kinase, ABC1 domain-containing, putative		0.3273	Gmet_1519
acyl-CoA synthetase, AMP-forming		0.32492	Gmet_1469
protein glutamate methyltransferase CheB			
associated with MCPs of class 36H,			
response receiver domain-containing	cheB36H	0.32333	Gmet_1075
oxidoreductase, flavin-binding protein		0.32135	Gmet_1533
nitrogenase molybdenum-iron protein, beta			
chain	nifK	0.30953	Gmet_0664
maltooligosyltrehalose trehalohydrolase,			
putative	treZ	0.30835	Gmet_3467
NADH dehydrogenase I, M subunit	nuoM-2	0.28906	Gmet_0171
UDP-glucose--undecaprenyl-phosphate			
glucosyltransferase		0.25748	Gmet_0242
hypothetical protein		0.25748	Gmet_2799
pentapeptide repeat protein		0.23494	Gmet_1201
(3R)-hydroxyacyl-(acyl carrier protein)			
dehydratase	fabZ-1	0.23494	Gmet_1697
succinyl-CoA synthetase, beta subunit	sucC-3	0.23494	Gmet_2261
dioxygenase, putative		0.22936	Gmet_2446
isovaleryl-CoA dehydrogenase		0.2201	Gmet_3289

hypothetical protein		0.21826	Gmet_0590
membrane protein MviN	mviN	0.21826	Gmet_2400
nucleoside triphosphate			
pyrophosphohydrolase MazG	mazG	0.19632	Gmet_2399
protein of unknown function, DUF302-containing		0.19088	Gmet_3125
thiolase		0.17649	Gmet_2197
cell shape-determining protein MreC	mreC	0.14813	Gmet_0926
acyl-CoA--carboxylate coenzyme A transferase, beta			
subunit, putative		0.14813	Gmet_1708
protein of unknown function DUF155		0.14288	Gmet_0881
hypothetical protein with twin-arginine translocation			
pathway signal		0.11688	Gmet_2124
rhomboid-related membrane protein		0.09642	Gmet_2385
succinyl-CoA synthetase, alpha subunit	sucD-3	0.05634	Gmet_2260
methyl-accepting chemotaxis sensory			
transducer, class 36H, Cache_2 domain-			
containing	mcp36H	0.04649	Gmet_1078
NAD-dependent nucleoside diphosphate-sugar			
epimerase/dehydratase		0.04159	Gmet_3144
DNA polymerase II, putative		0.027	Gmet_3187
small-conductance mechanosensitive ion			
channel	mscS-2	0.02216	Gmet_2581
filamentous hemagglutinin-like outer membrane protein		0.01735	Gmet_1458
winged helix-turn-helix transcriptional regulator, MarR			
family		0.00776	Gmet_1895
cytochrome c	coxB	0.00299	Gmet_0252
hypothetical protein		-0.00176	Gmet_3168
cytochrome c		-0.00965	Gmet_0292
hypothetical protein		-0.02329	Gmet_1200
NUDIX hydrolase, MutT family		-0.02996	Gmet_1790
tRNA (N6-dimethylallyl-A37)-			
dimethylallyltransferase	miaA	-0.02996	Gmet_2052
glutamyl-Q-tRNA(Asp) synthetase	yadB	-0.05304	Gmet_1780
acyl-CoA thioesterase		-0.05304	Gmet_2063
branched-chain 2-oxoacid dehydrogenase			
complex, E1 protein, beta subunit, putative	bkdB	-0.08026	Gmet_2510
protein of unknown function DUF853		-0.08475	Gmet_0767
iron-sulfur cluster-binding oxidoreductase	yccM-1	-0.10698	Gmet_3335
hypothetical protein		-0.11139	Gmet_1462
iron-sulfur cluster-binding oxidoreductase	yccM-2	-0.14615	Gmet_0297
TlpA family-related protein disulfide reductase		-0.15471	Gmet_1383
ADP-heptose--lipopolysaccharide heptosyltransferase		-0.15898	Gmet_2341
acyl-CoA thioesterase		-0.19678	Gmet_1721
iron-sulfur cluster-binding oxidoreductase		-0.20916	Gmet_0586
multicopper oxidase, manganese oxidase family, repeat-			
containing		-0.26559	Gmet_2165
thiol reductant ABC exporter, ATP-binding	cydC	-0.2669	Gmet_2633

protein CydC			
ADP-heptose--lipopolysaccharide heptosyltransferase, putative		-0.2774	Gmet_1410
outer membrane protein		-0.28781	Gmet_1457
transcriptional regulator, TetR family		-0.32369	Gmet_2216
short-chain acyl-CoA dehydrogenase		-0.32748	Gmet_3306
membrane protein, UPF0016 and UPF0016 domain-containing		-0.34629	Gmet_1157
ATPase, putative		-0.34629	Gmet_2026
succinyl-CoA synthetase, beta subunit	sucC-2	-0.35375	Gmet_2069
potassium-transporting ATPase, A subunit	kdpA	-0.36609	Gmet_2433
UDP-N-acetylglucosamine--undecaprenyl-phosphate N-acetylglucosamine-1-phosphate transferase and peptidylprolyl cis-trans isomerase, FKBP-type		-0.37833	Gmet_2161
respiratory nitrate reductase,			
molybdopterin-binding alpha subunit	narG-1	-0.38804	Gmet_0329
thiolase		-0.39769	Gmet_2058
molybdopterin--molybdenum ligase	moeA-2	-0.40847	Gmet_0336
transposase, IS256 family		-0.40847	Gmet_3341
exopolysaccharide synthesis periplasmic protein I	epsI	-0.45427	Gmet_2002
electron transfer flavoprotein-associated cytochrome b and CCG domain pair iron-sulfur cluster-binding oxidoreductase		-0.52642	Gmet_2255
repeat-containing protein		-0.64147	Gmet_2043
cytochrome c		-0.68457	Gmet_1703
4-alpha-glucanotransferase	malQ	-0.71094	Gmet_2391
VacJ family lipoprotein fusion protein		-0.71577	Gmet_0995
ABC transporter, membrane protein, ABC-2 family		-0.73111	Gmet_0014
phenylphosphate carboxylase, beta subunit		-0.76226	Gmet_2102
electron transfer flavoprotein, beta subunit	etfB-8	-0.78174	Gmet_2266
benzoate--coenzyme A ligase	bamY	-0.78726	Gmet_2143
enoyl-CoA hydratase/isomerase		-0.79823	Gmet_3291
succinyl:acetate coenzyme A transferase		-0.80912	Gmet_1125
electron transfer flavoprotein, beta subunit	etfB-2	-0.83598	Gmet_2067
nickel ABC transporter, membrane protein			
NikQ	nikQ	-0.83598	Gmet_2440
enoyl-CoA hydratase/isomerase		-0.87796	Gmet_2057
sensor histidine kinase, CHASE domain-containing VWFA superfamily protein		-0.88054	Gmet_2762
ABC transporter, ATP-binding/membrane protein		-0.90865	Gmet_1536
nitrogenase iron protein	nifH	-0.92125	Gmet_3423
adenine deaminase		-0.93374	Gmet_0662
transposition ATP-binding protein TniB		-0.97058	Gmet_2201
pyranopterin triphosphate synthase	moaA-2	-1.00176	Gmet_3048
sodium/solute symporter family protein	aplB	-1.10698	Gmet_0337
		-1.11139	Gmet_3288

thioredoxin domain protein YyaL	yyaL	-1.2194	Gmet_2401
branched-chain 2-oxoacid dehydrogenase complex, E2 protein, dihydrolipoamide acyltransferase, putative	bkdF	-1.35375	Gmet_2511
hypothetical protein		-1.35746	Gmet_0185
VWFA superfamily protein		-1.36486	Gmet_0107
thiolase		-1.36854	Gmet_1719
hypothetical protein		-1.36854	Gmet_1785
protein tyrosine kinase		-1.37222	Gmet_1447
glycosyltransferase		-1.40489	Gmet_1480
succinyl:(R)-benzylsuccinate coenzyme A transferase subunit	bbsF	-1.43331	Gmet_1522
hypothetical protein		-1.4508	Gmet_1514
menaquinol oxidoreductase complex Cbc4, cytochrome b subunit, putative	cbcU-2	-1.46119	Gmet_0327
efflux pump, RND family, membrane fusion protein		-1.48515	Gmet_3508
sensor histidine kinase, PAS domain-containing aconitate hydratase 1	acnA	-1.53519	Gmet_2159
respiratory nitrate reductase, iron-sulfur cluster-binding beta subunit	narH-1	-1.62728	Gmet_1016
D-glycero-D-mannoheptose-7-phosphate kinase and D-glycero-D-mannoheptose-1-phosphate adenyltransferase	hldE	-1.67568	Gmet_0330
p-cresol methylhydroxylase, alpha-prime subunit	pcml	-1.69341	Gmet_0922
3-methylcrotonyl-CoA carboxylase, beta subunit	mccB	-1.80912	Gmet_2125
sensor histidine kinase, PAS domain-containing UDP-N-acetylglucosamine--undecaprenyl-phosphate N-acetylglucosaminophotransferase, putative aromatic catabolism-like sigma-54-dependent transcriptional regulator, XylR and V4R domain-containing		-1.81992	Gmet_3290
PASTA-related domain protein		-1.82261	Gmet_0731
3-methylcrotonyl-CoA carboxylase, biotin-containing alpha subunit	mccA	-1.84659	Gmet_1505
single-stranded right-handed parallel beta-helix fold protein, galacturonase family		-1.92125	Gmet_2099
osmosensitive potassium channel sensor histidine kinase KdpD, KdpD and USP_OKCHK domain-containing	kdpD	-1.94613	Gmet_1196
protein of unknown function, coenzyme A-binding and coenzyme A ligase domain-containing outer membrane channel, putative		-2.1397	Gmet_3292
		-2.25965	Gmet_2173
		-2.54987	Gmet_2436
		-2.58356	Gmet_0306
		-3.30554	Gmet_1194

Table S3. List of genes belonging to *Methanosaeta harundinacea* and *Geobacter metallireducens* and their normalized expression levels. Data are representative of triplicate co-cultures.

Table S3a. List of genes belonging to *Methanosaeta harundinacea* and their expression levels. Transcript reads that have \geq median log2 RPKM values (5.6) were taken as the threshold for the significant expression level.

<u>/product</u>	<u>/gene</u>	<u>Average-GMMH log2 RPKM</u>	<u>/locus_tag</u>	<u>Median</u>
Methyl-coenzyme M reductase, protein D		14.2	Mhar_0496	5.6
hypothetical protein		13.9	Mhar_0549	
S-layer protein		13.8	Mhar_0562	
Cold shock DNA binding domain protein		13.7	Mhar_1523	
V-type ATP synthase subunit F		13.5	Mhar_2256	
TRAM domain protein		13.4	Mhar_0760	
CO dehydrogenase/acetyl-CoA synthase C		13.2	Mhar_2325	
H+-transporting two-sector ATPase subunit C		13.0	Mhar_2259	
Methyl-coenzyme M reductase, gamma subunit		13.0	Mhar_0497	
Putative phosphoserine phosphatase		12.9	Mhar_0193	
30S ribosomal protein S8e		12.8	Mhar_0114	
Methyl-coenzyme M reductase, beta subunit		12.4	Mhar_0495	
hypothetical protein		12.3	Mhar_0191	
acetyl-CoA synthetase		12.3	Mhar_0749	
hypothetical protein		12.3	Mhar_0548	
Acetyl-CoA decarbonylase/synthase complex subunit beta		12.3	Mhar_2326	
CO dehydrogenase maturation factor		12.3	Mhar_2324	
Deoxyribonuclease/rho motif-related TRAM		12.2	Mhar_2107	
30S ribosomal protein S28e		12.1	Mhar_1955	
V-type ATP synthase subunit E		12.0	Mhar_2258	
V-type ATP synthase subunit D		11.9	Mhar_2253	
Tetrahydromethanopterin S-methyltransferase, subunit B		11.8	Mhar_2093	
30S ribosomal protein S13		11.8	Mhar_0813	
Tetrahydromethanopterin S-methyltransferase, subunit G		11.8	Mhar_2096	
Lipoprotein, putative		11.7	Mhar_0547	
Tetrahydromethanopterin S-methyltransferase, subunit A		11.7	Mhar_2094	
hypothetical protein		11.7	Mhar_0429	
Acetyl-CoA decarbonylase/synthase gamma subunit		11.6	Mhar_2322	
Acetyl-CoA decarbonylase/synthase complex subunit delta		11.5	Mhar_2323	
50S ribosomal protein L18e		11.5	Mhar_0976	
H(+) -transporting ATP synthase, subunit H		11.4	Mhar_2261	
V-type ATP synthase subunit C		11.4	Mhar_2257	
V-type ATP synthase subunit B		11.4	Mhar_2254	

50S ribosomal protein L1P	11.4	Mhar_1234
Lipoprotein, putative	11.3	Mhar_2142
V-type ATP synthase subunit A	11.3	Mhar_2255
30S ribosomal protein S4	11.1	Mhar_0812
Tetrahydromethanopterin S-methyltransferase, subunit E	11.1	Mhar_2090
50S ribosomal protein L23	11.1	Mhar_0474
Methyl-coenzyme M reductase, alpha subunit	11.1	Mhar_0498
Protein translation factor SUI1 like protein	11.0	Mhar_2313
F420H2 dehydrogenase, subunit A	11.0	Mhar_1410
Acetyl-CoA decarbonylase/synthase complex subunit alpha	11.0	Mhar_2328
30S ribosomal protein S7	11.0	Mhar_0388
TRAM domain protein	11.0	Mhar_0759
Desulfoferrodoxin Dfx domain-containing protein	11.0	Mhar_1723
50S ribosomal protein L24e	10.9	Mhar_1954
Response regulator receiver domain-containing protein (CheY-like)	10.9	Mhar_0423
50S ribosomal protein L11	10.9	Mhar_1233
50S ribosomal protein L24	10.8	Mhar_1231
Small nuclear ribonucleoprotein, LSM family	10.8	Mhar_1964
50S ribosomal protein L39e	10.8	Mhar_1735
50S ribosomal protein L21e	10.8	Mhar_0818
Acetyl-CoA decarbonylase/synthase alpha subunit	10.7	Mhar_0789
Thermosome subunit delta	10.7	Mhar_1232
Chromosomal protein MC1c	10.7	Mhar_1238
V-type ATP synthase subunit I	10.7	Mhar_2260
hypothetical protein	10.7	Mhar_1307
Tetrahydromethanopterin S-methyltransferase, subunit D	10.6	Mhar_2091
DNA-directed RNA polymerase subunit F	10.6	Mhar_0817
Universal stress protein	10.5	Mhar_2048
Manganese-dependent inorganic pyrophosphatase	10.4	Mhar_0188
hypothetical protein	10.4	Mhar_1534
F420H2 dehydrogenase subunit O	10.4	Mhar_0854
F420H2 dehydrogenase, subunit B	10.4	Mhar_1411
Tetrahydromethanopterin S-methyltransferase, subunit H	10.3	Mhar_2097
50S ribosomal protein L13	10.3	Mhar_0977
4Fe-4S ferredoxin	10.3	Mhar_1414
50S ribosomal protein L7Ae	10.3	Mhar_1956
30S ribosomal protein S17e	10.3	Mhar_1898
ribonuclease P protein component 2	10.3	Mhar_2166
Elongation factor 1-alpha	10.3	Mhar_0302
Deoxyribonuclease/rho motif-related TRAM	10.3	Mhar_0480
30S ribosomal protein S24e	10.3	Mhar_1914
50S ribosomal protein L19e	10.3	Mhar_0458
Tetrahydromethanopterin S-methyltransferase subunit F	10.3	Mhar_2095
30S ribosomal protein S10P	10.3	Mhar_0303
Co-chaperone GrpE	10.2	Mhar_2127

30S ribosomal protein S17	10.2	Mhar_0467
50S ribosomal protein L2	10.2	Mhar_0473
50S ribosomal protein L30	10.2	Mhar_0455
50S ribosomal protein L14	10.2	Mhar_0466
50S ribosomal protein L4P	10.1	Mhar_0475
30S ribosomal protein S12	10.1	Mhar_0387
50S ribosomal protein L3P	10.1	Mhar_0476
hypothetical protein	10.1	Mhar_0536
50S ribosomal protein L32e	10.1	Mhar_0459
putative RNA-binding protein involved in rRNA processing	10.0	Mhar_2247
Dinitrogenase iron-molybdenum cofactor biosynthesis	10.0	Mhar_1393
hypothetical protein	10.0	Mhar_1893
hypothetical protein	10.0	Mhar_1670
30S ribosomal protein S15P/S13e	10.0	Mhar_0150
Lipoprotein, putative	10.0	Mhar_0080
Translation initiation factor 1A (eIF-1A)	10.0	Mhar_2352
DNA-directed RNA polymerase subunit D	9.9	Mhar_0810
50S ribosomal protein L24	9.9	Mhar_0465
Elongation factor 2	9.9	Mhar_0301
50S ribosomal protein L44e	9.8	Mhar_0058
hypothetical protein	9.8	Mhar_2157
Nitrogen-fixing NifU domain protein	9.8	Mhar_2316
30S ribosomal protein S11	9.8	Mhar_0811
hypothetical protein	9.8	Mhar_0953
50S ribosomal protein L10	9.8	Mhar_1235
acetyl-CoA synthetase	9.8	Mhar_0751
DNA-directed RNA polymerase subunit E''	9.7	Mhar_1912
Chorismate mutase	9.7	Mhar_2051
AsnC family transcriptional regulator	9.7	Mhar_0085
30S ribosomal protein S9	9.7	Mhar_0978
Phosphate ABC transporter substrate-binding protein, PhoT family	9.7	Mhar_0406
adenylate kinase	9.7	Mhar_0279
hypothetical protein	9.7	Mhar_0523
50S ribosomal protein LX	9.7	Mhar_1738
hypothetical protein	9.7	Mhar_0329
50S ribosomal protein L29	9.6	Mhar_0469
Acylphosphatase, putative	9.6	Mhar_2298
hypothetical protein	9.6	Mhar_0755
anthranilate phosphoribosyltransferase	9.6	Mhar_1251
nucleoside diphosphate kinase	9.6	Mhar_1953
hypothetical protein	9.6	Mhar_2036
Tetrahydromethanopterin S-methyltransferase, subunit C	9.6	Mhar_2092
Prefoldin, beta subunit	9.6	Mhar_2156
DNA-directed RNA polymerase subunit E'	9.5	Mhar_1911
Translation initiation factor eIF-5A	9.5	Mhar_0697

Transcription termination factor NusA	9.5	Mhar_0386
DNA-directed RNA polymerase subunit H	9.4	Mhar_0380
dinitrogenase iron-molybdenum cofactor biosynthesis protein	9.4	Mhar_1394
SecD/SecF/SecDF export membrane protein	9.4	Mhar_1868
glyceraldehyde-3-phosphate dehydrogenase	9.4	Mhar_1240
DNA/RNA-binding protein Alba	9.4	Mhar_0366
Heat shock protein Hsp20	9.4	Mhar_0035
CO dehydrogenase maturation factor	9.3	Mhar_1591
CoB-CoM heterodisulfide reductase, subunit E	9.3	Mhar_0792
Translation initiation factor 2, alpha subunit	9.3	Mhar_0056
hypothetical protein	9.3	Mhar_1326
ribonuclease P protein component 1	9.3	Mhar_0468
Small nuclear ribonucleoprotein, LSM family	9.3	Mhar_2315
hypothetical protein	9.3	Mhar_2317
50S ribosomal protein L15e	9.3	Mhar_2169
Thermosome subunit gamma	9.3	Mhar_0878
hypothetical protein	9.3	Mhar_2283
30S ribosomal protein S3Ae	9.3	Mhar_1592
Acetyl-CoA decarbonylase/synthase complex subunit epsilon	9.3	Mhar_2327
CoB-CoM heterodisulfide reductase, subunit D	9.3	Mhar_0793
50S ribosomal protein L6	9.3	Mhar_0460
50S ribosomal protein L18	9.3	Mhar_0457
Alcohol dehydrogenase, zinc-containing	9.2	Mhar_1252
hypothetical protein	9.2	Mhar_1734
50S ribosomal protein L37Ae	9.2	Mhar_2160
Prefoldin, alpha subunit	9.2	Mhar_1739
hypothetical protein	9.2	Mhar_1049
hypothetical protein	9.2	Mhar_1768
50S ribosomal protein L5	9.2	Mhar_0463
Peptidase S8 and S53 subtilisin kexin sedolisin	9.2	Mhar_0511
hypothetical protein	9.2	Mhar_2187
Ferredoxin	9.2	Mhar_0153
hypothetical protein	9.2	Mhar_1762
Exosome complex RNA-binding protein RRP4	9.1	Mhar_2163
AbrB family transcriptional regulator	9.1	Mhar_1477
Branched-chain amino acid aminotransferase	9.1	Mhar_1383
30S ribosomal protein S19E	9.1	Mhar_1732
50S ribosomal protein L31e	9.1	Mhar_1736
hypothetical protein	9.1	Mhar_0477
30S ribosomal protein S3	9.1	Mhar_0470
Putative signal transduction protein with CBS domains	9.1	Mhar_0359
50S ribosomal protein L37e	9.1	Mhar_1963
hypothetical protein	9.1	Mhar_2279
DNA-directed RNA polymerase subunit A''	9.1	Mhar_0384
hypothetical protein	9.0	Mhar_1144
hypothetical protein	9.0	Mhar_1295

30S ribosomal protein S2P	9.0	Mhar_0981
translation initiation factor 2 subunit beta	9.0	Mhar_1182
Sirohydrochlorin cobaltochelatase	9.0	Mhar_2389
hypothetical protein	9.0	Mhar_0980
Proteasome subunit alpha	9.0	Mhar_2165
ABC transporter substrate binding protein	9.0	Mhar_1043
ATP-dependent protease	9.0	Mhar_2020
NADH:ubiquinone oxidoreductase J	9.0	Mhar_1415
hypothetical protein	9.0	Mhar_2145
F420H2 dehydrogenase, subunit H	9.0	Mhar_1413
hypothetical protein	8.9	Mhar_1794
50S ribosomal protein L10e	8.9	Mhar_1181
hypothetical protein	8.9	Mhar_1158
Chaperone protein DnaK	8.9	Mhar_2126
rubredoxin-type Fe(Cys)4 protein	8.9	Mhar_1374
hypothetical protein	8.9	Mhar_1733
50S ribosomal protein L22	8.9	Mhar_0471
hypothetical protein	8.9	Mhar_1913
hypothetical protein	8.9	Mhar_1405
hypothetical protein	8.9	Mhar_2235
Universal stress protein	8.9	Mhar_1001
F420H2 dehydrogenase, subunit D	8.9	Mhar_1412
50S ribosomal protein L30e	8.8	Mhar_0385
F420H2 dehydrogenase, subunit K	8.8	Mhar_1417
50S ribosomal protein L15	8.8	Mhar_0454
Exosome complex exonuclease 1	8.8	Mhar_2162
GPR1/FUN34/yaaH family protein	8.8	Mhar_0433
translation initiation factor eIF-2	8.8	Mhar_1952
30S ribosomal protein S14	8.8	Mhar_0462
Putative signal-transduction protein with CBS domains	8.8	Mhar_0362
rubrerythrin	8.8	Mhar_1343
hypothetical protein	8.7	Mhar_0081
Ribosome biogenesis protein Nop10	8.7	Mhar_0055
hypothetical protein	8.7	Mhar_1314
3-isopropylmalate dehydrogenase	8.7	Mhar_0378
hypothetical protein	8.7	Mhar_0276
hypothetical protein	8.7	Mhar_2297
3-isopropylmalate dehydratase small subunit	8.7	Mhar_0377
ArsR family transcriptional regulator	8.7	Mhar_0767
radical SAM protein	8.7	Mhar_2031
Thioredoxin	8.7	Mhar_1159
hypothetical protein	8.7	Mhar_2176
hypothetical protein	8.7	Mhar_1190
hypothetical protein	8.7	Mhar_0319
Pyruvate:ferredoxin oxidoreductase subunit A	8.7	Mhar_2217
Putative signal transduction protein with CBS domains	8.7	Mhar_0360

hypothetical protein	8.7	Mhar_0546
hypothetical protein	8.6	Mhar_1052
DNA-directed RNA polymerase subunit L	8.6	Mhar_1313
proteasome-activating nucleotidase	8.6	Mhar_2076
S-layer protein	8.6	Mhar_0637
hypothetical protein	8.6	Mhar_1590
proteasome subunit beta	8.6	Mhar_2229
GTP-binding protein	8.6	Mhar_2032
tRNA pseudouridine synthase Pus10	8.6	Mhar_0819
Acetyl-CoA decarbonylase/synthase complex subunit epsilon	8.6	Mhar_0790
hypothetical protein	8.5	Mhar_0054
Carboxymuconolactone decarboxylase family protein	8.5	Mhar_1272
ABC transporter substrate-binding protein	8.5	Mhar_0803
F420H2 dehydrogenase, subunit J	8.5	Mhar_1416
Thermosome subunit	8.5	Mhar_2128
S-adenosylmethionine synthase	8.5	Mhar_0868
Putative antitoxin PYRAB11980	8.5	Mhar_0968
type-2 seryl-tRNA synthetase	8.5	Mhar_0147
Putative signal transduction protein with CBS domains	8.5	Mhar_0361
Exported lipoprotein	8.5	Mhar_1775
Peptide methionine sulfoxide reductase msrB	8.4	Mhar_0290
hypothetical protein	8.4	Mhar_2035
30S ribosomal protein S19	8.4	Mhar_0472
2-isopropylmalate synthase	8.4	Mhar_1803
Exosome complex exonuclease 2	8.4	Mhar_2161
hypothetical protein	8.4	Mhar_1308
hypothetical protein	8.4	Mhar_0816
tRNA-splicing endonuclease	8.3	Mhar_1241
RNA-metabolising metallo-beta-lactamase	8.3	Mhar_2230
hypothetical protein	8.3	Mhar_0223
hypothetical protein	8.3	Mhar_1401
hypothetical protein	8.3	Mhar_2164
hypothetical protein	8.3	Mhar_0204
hypothetical protein	8.3	Mhar_0952
phage shock protein A	8.3	Mhar_1814
Extracellular solute-binding protein, family 5	8.3	Mhar_0801
HTH-type transcriptional regulatory protein, putative	8.3	Mhar_0186
4Fe-4S ferredoxin	8.3	Mhar_1629
50S ribosomal protein L12	8.3	Mhar_1236
Transcription initiation factor IIB	8.3	Mhar_2248
F420H2 dehydrogenase, subunit L	8.3	Mhar_1418
N-acetyltransferase GCN5	8.2	Mhar_1683
Preprotein translocase, SecY subunit	8.2	Mhar_0453
hypothetical protein	8.2	Mhar_1135
Acylphosphatase, putative	8.2	Mhar_1120
Pyruvate:ferredoxin oxidoreductase subunit B	8.2	Mhar_2216

30S ribosomal protein S6e	8.2	Mhar_0554
PIN domain-containing protein	8.2	Mhar_2221
F420H2 dehydrogenase, subunit M	8.2	Mhar_1419
hypothetical protein	8.2	Mhar_0115
hypothetical protein	8.2	Mhar_2158
Elongation factor 1-beta	8.2	Mhar_1244
hypothetical protein	8.2	Mhar_2069
Periplasmic copper-binding protein (NosD), putative	8.2	Mhar_0022
Putative methanogenesis marker 13 metalloprotein	8.2	Mhar_2391
30S ribosomal protein S4e	8.2	Mhar_0464
hypothetical protein	8.2	Mhar_0116
Peptidylprolyl isomerase, FKBP-type	8.2	Mhar_1804
Putative methanogenesis marker protein 3	8.2	Mhar_1406
IMP cyclohydrolase	8.2	Mhar_2215
radical SAM protein	8.2	Mhar_0895
L-aspartate aminotransferase apoenzyme / phosphoserine		
aminotransferase apoenzyme	8.2	Mhar_1660
hypothetical protein	8.2	Mhar_0823
hypothetical protein	8.1	Mhar_2034
Dihydrodipicolinate synthase	8.1	Mhar_1897
glucose-6-phosphate isomerase	8.1	Mhar_1497
Coenzyme F420 hydrogenase/dehydrogenase beta subunit		
domain protein	8.1	Mhar_2358
hypothetical protein	8.1	Mhar_0592
Kinase RIO1 family protein	8.1	Mhar_2353
ketol-acid reductoisomerase	8.1	Mhar_1019
Pyruvate:ferredoxin oxidoreductase subunit D	8.1	Mhar_2218
hypothetical protein	8.1	Mhar_0371
hypothetical protein	8.1	Mhar_1935
hypothetical protein	8.1	Mhar_1133
Putative signal transduction protein with CBS domains	8.1	Mhar_1000
hypothetical protein	8.1	Mhar_1597
hypothetical protein	8.1	Mhar_0765
DNA-directed RNA polymerase subunit M	8.1	Mhar_0395
30S ribosomal protein S8	8.1	Mhar_0461
Heat shock protein Hsp20	8.1	Mhar_0286
Nucleotide binding protein, PINc	8.1	Mhar_1910
hypothetical protein	8.0	Mhar_1263
Putative 6-phosphogluconate dehydrogenase	8.0	Mhar_1376
FeoA domain-containing protein	8.0	Mhar_1936
hypothetical protein	8.0	Mhar_2270
Lipoprotein, putative	8.0	Mhar_0021
hypothetical protein	8.0	Mhar_1776
hypothetical protein	8.0	Mhar_1573
Single-stranded DNA-binding replication protein A	8.0	Mhar_0083
DNA-directed RNA polymerase, subunit B'	8.0	Mhar_0381

hypothetical protein	8.0	Mhar_1924
hypothetical protein	8.0	Mhar_1982
peptidyl-prolyl cis-trans isomerase	8.0	Mhar_1165
Signal recognition particle GTPase	8.0	Mhar_0043
hypothetical protein	8.0	Mhar_1691
Phosphoribosylformylglycinamidine synthase I	8.0	Mhar_1575
radical SAM protein	8.0	Mhar_0960
Cna B domain-containing protein	8.0	Mhar_0347
GTP cyclohydrolase mptA	8.0	Mhar_1861
AMP-forming acetyl-CoA synthetase	8.0	Mhar_0585
hypothetical protein	8.0	Mhar_0582
histone	8.0	Mhar_0399
hypothetical protein	8.0	Mhar_1770
phosphoenolpyruvate synthase	8.0	Mhar_0757
Pyruvate:ferredoxin oxidoreductase subunit C	7.9	Mhar_2219
3-hexulose-6-phosphate synthase	7.9	Mhar_1869
hypothetical protein	7.9	Mhar_1440
hypothetical protein	7.9	Mhar_1069
hypothetical protein	7.9	Mhar_2305
Homoserine dehydrogenase	7.9	Mhar_1488
hypothetical protein	7.9	Mhar_1771
Phosphoesterase, RecJ domain protein	7.9	Mhar_0149
DNA-directed RNA polymerase subunit A'	7.9	Mhar_0383
hypothetical protein	7.9	Mhar_2299
hypothetical protein	7.9	Mhar_1463
Aspartate carbamoyltransferase, regulatory subunit	7.9	Mhar_1805
hypothetical protein	7.9	Mhar_0405
Acetyl-CoA decarbonylase/synthase complex subunit beta	7.9	Mhar_0791
Putative signal transduction protein with CBS domains	7.9	Mhar_0281
Nitrous oxidase accessory protein-like protein	7.9	Mhar_1780
hypothetical protein	7.9	Mhar_2071
hypothetical protein	7.9	Mhar_1675
DNA-directed RNA polymerase subunit B'	7.9	Mhar_0382
hypothetical protein	7.8	Mhar_0126
hypothetical protein	7.8	Mhar_0210
argininosuccinate synthase	7.8	Mhar_2030
peptidyl-prolyl cis-trans isomerase	7.8	Mhar_1438
Amino acid-binding ACT domain protein	7.8	Mhar_0309
Putative N-6 DNA methylase	7.8	Mhar_2144
Amidophosphoribosyltransferase	7.8	Mhar_1962
Methyl coenzyme M reductase system, component A2	7.8	Mhar_1407
AsnC family transcriptional regulator	7.8	Mhar_0487
hypothetical protein	7.8	Mhar_2118
tyrosyl-tRNA synthetase	7.8	Mhar_1199
Phenylacetate-coenzyme A ligase	7.8	Mhar_0308
transcription factor E	7.8	Mhar_0327

hypothetical protein	7.8	Mhar_0196
hypothetical protein	7.8	Mhar_0125
hypothetical protein	7.8	Mhar_0229
hypothetical protein	7.8	Mhar_1901
Response regulator receiver protein	7.8	Mhar_0447
Ferritin, Dps family protein	7.8	Mhar_1375
OB-fold nucleic acid binding domain-containing protein	7.8	Mhar_0442
Nitrogen-fixing NifU domain protein	7.8	Mhar_0632
Signal recognition particle-docking protein FtsY	7.8	Mhar_1740
Rhodanese domain-containing protein	7.8	Mhar_2038
hypothetical protein	7.7	Mhar_0071
isoleucyl-tRNA synthetase	7.7	Mhar_1785
Anaerobic ribonucleoside-triphosphate reductase	7.7	Mhar_0154
hypothetical protein	7.7	Mhar_2154
Transcriptional regulator, CopG family	7.7	Mhar_0250
hypothetical protein	7.7	Mhar_0451
hypothetical protein	7.7	Mhar_1779
Lipoprotein, putative	7.7	Mhar_1429
phosphoribosylaminoimidazolecarboxamide formyltransferase	7.7	Mhar_0008
Dihydronicotinate reductase	7.7	Mhar_1896
hypothetical protein	7.7	Mhar_0195
hypothetical protein	7.7	Mhar_1651
hypothetical protein	7.7	Mhar_1250
Periplasmic copper-binding protein	7.7	Mhar_1522
hypothetical protein	7.7	Mhar_0415
hypothetical protein	7.7	Mhar_0795
hypothetical protein	7.7	Mhar_1907
glutamate-1-semialdehyde-2,1-aminomutase	7.7	Mhar_1277
Myo-inositol-1-phosphate synthase	7.7	Mhar_2043
Cell surface protein	7.7	Mhar_1788
hypothetical protein	7.7	Mhar_0358
hypothetical protein	7.7	Mhar_2220
Tungsten formylmethanofuran dehydrogenase, subunit D	7.7	Mhar_2308
Translation initiation factor 6 (eIF-6)	7.7	Mhar_1737
Putative methanogenesis marker protein 1	7.7	Mhar_1259
Phosphoribosylglycinamide formyltransferase	7.7	Mhar_0367
Orc1/cdc6 family replication initiation protein	7.7	Mhar_0224
Metallo-beta-lactamase domain protein	7.7	Mhar_0173
hypothetical protein	7.7	Mhar_1815
hypothetical protein	7.7	Mhar_0434
hypothetical protein	7.7	Mhar_2238
D-3-phosphoglycerate dehydrogenase	7.6	Mhar_0837
DNA-directed RNA polymerase subunit P	7.6	Mhar_2159
glutamyl-tRNA reductase	7.6	Mhar_0164
hypothetical protein	7.6	Mhar_1773
Putative CoA-substrate-specific enzyme activase	7.6	Mhar_1403

AAA ATPase family protein associated with various cellular activities	7.6	Mhar_1187
hypothetical protein	7.6	Mhar_0780
hypothetical protein	7.6	Mhar_1621
peptidyl-prolyl cis-trans isomerase	7.6	Mhar_1166
hypothetical protein	7.6	Mhar_0419
Alpha glucan phosphorylase	7.6	Mhar_1230
hypothetical protein	7.6	Mhar_0148
hypothetical protein	7.6	Mhar_0398
Iron(III) ABC transporter, solute-binding protein HemV2	7.6	Mhar_1034
hypothetical protein	7.6	Mhar_2281
transcriptional regulator	7.6	Mhar_0586
ABC transporter ATP-binding protein	7.6	Mhar_2002
2-isopropylmalate synthase	7.6	Mhar_1932
4Fe-4S ferredoxin	7.6	Mhar_0870
Amino acid-binding ACT domain protein	7.6	Mhar_1489
Methyl-coenzyme M reductase operon protein C	7.6	Mhar_0529
hypothetical protein	7.6	Mhar_2396
hypothetical protein	7.6	Mhar_1402
hypothetical protein	7.5	Mhar_0988
5-formaminoimidazole-4-carboxamide-1-(beta)-D- ribofuranosyl 5'-monophosphate synthetase	7.5	Mhar_0580
Alkylhydroperoxidase like protein, AhpD family	7.5	Mhar_1400
hypothetical protein	7.5	Mhar_0372
30S ribosomal protein S5	7.5	Mhar_0456
Cell surface protein, putative	7.5	Mhar_0168
(R)-citramalate synthase	7.5	Mhar_1016
hypothetical protein	7.5	Mhar_1661
ATP-citrate lyase subunit B	7.5	Mhar_1527
methionyl-tRNA synthetase	7.5	Mhar_0444
XRE family transcriptional regulator	7.5	Mhar_0831
NAD-dependent epimerase/dehydratase	7.5	Mhar_1102
ArsR family transcriptional regulator	7.5	Mhar_0425
Riboflavin biosynthesis protein RibD C-domain protein	7.5	Mhar_0530
hypothetical protein	7.5	Mhar_1183
Phosphoribosylformylglycinamidine cyclo-ligase	7.5	Mhar_0299
HtpX protease, putative	7.5	Mhar_2024
flavoprotein	7.5	Mhar_0076
hypothetical protein	7.5	Mhar_1652
hypothetical protein	7.5	Mhar_0357
Mur ligase, middle domain protein	7.5	Mhar_2390
class I and II aminotransferase	7.5	Mhar_2331
hypothetical protein	7.4	Mhar_2345
hypothetical protein	7.4	Mhar_1607
Periplasmic copper-binding protein	7.4	Mhar_0007
hypothetical protein	7.4	Mhar_1162

Sulfide dehydrogenase (Flavoprotein) subunit SudB	7.4	Mhar_0688
Oligopeptide ABC transporter, solute-binding protein	7.4	Mhar_1042
Tungsten formylmethanofuran dehydrogenase, subunit E	7.4	Mhar_0318
hypothetical protein	7.4	Mhar_0356
Lipoprotein, putative	7.4	Mhar_1428
PBS lyase HEAT domain-containing protein repeat-containing protein	7.4	Mhar_1481
hypothetical protein	7.4	Mhar_0298
proteasome-activating nucleotidase	7.4	Mhar_0832
hypothetical protein	7.4	Mhar_1974
Thioredoxin	7.4	Mhar_0911
hypothetical protein	7.4	Mhar_2098
hypothetical protein	7.4	Mhar_1151
hypothetical protein	7.4	Mhar_2359
Cna B domain-containing protein	7.4	Mhar_0338
hypothetical protein	7.4	Mhar_0059
SecD/SecF/SecDF export membrane protein	7.4	Mhar_1867
ABC transporter ATP-binding protein	7.4	Mhar_0443
adenylosuccinate synthetase	7.4	Mhar_2184
Cell surface protein	7.4	Mhar_0574
hypothetical protein	7.4	Mhar_2070
helix-turn-helix domain-containing protein	7.4	Mhar_2232
DOMON domain-containing protein	7.4	Mhar_1793
cell division protein FtsZ	7.3	Mhar_0519
hypothetical protein	7.3	Mhar_0776
Cytidyltransferase	7.3	Mhar_0859
hypothetical protein	7.3	Mhar_1147
hypothetical protein	7.3	Mhar_1237
Glutamate synthase (NADPH), homotetrameric	7.3	Mhar_0690
hypothetical protein	7.3	Mhar_2033
Minichromosome maintenance protein MCM	7.3	Mhar_1921
hypothetical protein	7.3	Mhar_0369
hypothetical protein	7.3	Mhar_1118
hypothetical protein	7.3	Mhar_0084
hypothetical protein	7.3	Mhar_0517
Competence-like protein	7.3	Mhar_1882
hypothetical protein	7.3	Mhar_2321
Nascent polypeptide associated complex NAC	7.3	Mhar_0432
hypothetical protein	7.3	Mhar_0800
tryptophanyl-tRNA synthetase	7.3	Mhar_0416
hypothetical protein	7.3	Mhar_2354
hypothetical protein	7.3	Mhar_2347
Xaa-Pro dipeptidase	7.3	Mhar_1821
hypothetical protein	7.3	Mhar_1643
Formate dehydrogenase subunit alpha	7.2	Mhar_0689
hypothetical protein	7.2	Mhar_0861

hypothetical protein	7.2	Mhar_0364
Protein translocase subunit secE/sec61 gamma	7.2	Mhar_2392
Signal sequence recognition 54 kDa protein	7.2	Mhar_2349
Ribosomal protein S27	7.2	Mhar_0057
Phosphate transport system regulatory protein PhoU	7.2	Mhar_2131
hypothetical protein	7.2	Mhar_1787
DNA polymerase sliding clamp	7.2	Mhar_0394
aspartate carbamoyltransferase	7.2	Mhar_1806
Lipoprotein, putative	7.2	Mhar_0576
AAA ATPase	7.2	Mhar_1993
DNA repair and recombination protein RadA	7.2	Mhar_0441
Integral membrane protein with CBS domains	7.2	Mhar_0131
L-lysine 2,3-aminomutase	7.2	Mhar_1009
hypothetical protein	7.2	Mhar_1662
Transposase, IS605 OrfB family	7.2	Mhar_1092
TfuA-like protein	7.2	Mhar_1260
hypothetical protein	7.2	Mhar_1602
hypothetical protein	7.2	Mhar_1316
argininosuccinate lyase	7.2	Mhar_1637
hypothetical protein	7.2	Mhar_2179
hypothetical protein	7.2	Mhar_0687
Cytidine deaminase	7.2	Mhar_2005
Pyridoxal-phosphate dependent TrpB-like enzyme	7.2	Mhar_2251
Sulfite reductase, assimilatory-type	7.2	Mhar_0565
Trk system potassium uptake protein	7.2	Mhar_1324
L-tyrosine decarboxylase	7.2	Mhar_0758
hypothetical protein	7.2	Mhar_1687
Pyruvate carboxylase subunit A	7.2	Mhar_0863
hypothetical protein	7.2	Mhar_0016
hypothetical protein	7.2	Mhar_0392
RNA 2'-phosphotransferase, Tpt1 / KptA family	7.2	Mhar_1862
TraB family protein	7.1	Mhar_0027
Glutamyl-tRNA(Gln) amidotransferase, subunit D	7.1	Mhar_1180
Metal ABC transporter, ATP-binding protein	7.1	Mhar_1164
Ribonuclease HII	7.1	Mhar_1659
rhomboid family protein	7.1	Mhar_1801
DNA gyrase subunit B	7.1	Mhar_2083
hypothetical protein	7.1	Mhar_0962
Pyruvate carboxylase subunit B	7.1	Mhar_2278
Hydrolase	7.1	Mhar_1492
hypothetical protein	7.1	Mhar_0146
GMP synthase subunit B	7.1	Mhar_0349
Dihydroorotate	7.1	Mhar_1970
hypothetical protein	7.1	Mhar_0207
radical SAM protein	7.1	Mhar_0896
Signal recognition particle GTPase	7.1	Mhar_1758

Ribosomal L11 methyltransferase	7.1	Mhar_1315
Ferredoxin	7.1	Mhar_1077
outer membrane protein	7.1	Mhar_2112
hypothetical protein	7.1	Mhar_1664
bifunctional formaldehyde-activating enzyme/3-hexulose-6-phosphate synthase	7.1	Mhar_0019
hypothetical protein	7.1	Mhar_1818
hypothetical protein	7.1	Mhar_1916
hypothetical protein	7.1	Mhar_0418
Sugar phosphate isomerase involved in capsule formation-like protein	7.1	Mhar_0579
Rhodanese domain-containing protein	7.1	Mhar_0023
hypothetical protein	7.1	Mhar_1777
ArsR family transcriptional regulator	7.1	Mhar_2231
hypothetical protein	7.1	Mhar_0644
phosphoglycolate phosphatase	7.1	Mhar_0440
N-acetyl-gamma-glutamyl-phosphate reductase	7.1	Mhar_1634
TATA-box-binding protein	7.0	Mhar_0355
glutamate dehydrogenase	7.0	Mhar_0685
hypothetical protein	7.0	Mhar_0877
hypothetical protein	7.0	Mhar_0328
Thiamine biosynthesis protein ThiC	7.0	Mhar_0564
hypothetical protein	7.0	Mhar_0568
Toxic anion resistance protein	7.0	Mhar_1846
Histidine triad (HIT) protein	7.0	Mhar_0368
Integrins alpha chain	7.0	Mhar_1112
2,3-dihydro-2,3-dihydroxybenzoate dehydrogenase	7.0	Mhar_0902
nucleotidyltransferase	7.0	Mhar_1327
replication factor C small subunit	7.0	Mhar_1345
Phosphate ABC transporter, ATP-binding protein	7.0	Mhar_2130
Potassium channel protein	7.0	Mhar_1968
hypothetical protein	7.0	Mhar_1004
AsnC family transcriptional regulator	7.0	Mhar_0167
Acetolactate synthase, small subunit	7.0	Mhar_1018
hypothetical protein	7.0	Mhar_1175
phosphoribosylaminoimidazole carboxylase	7.0	Mhar_2050
Cell surface protein	7.0	Mhar_0736
glycosyl transferase	7.0	Mhar_1101
hypothetical protein	7.0	Mhar_0667
hypothetical protein	7.0	Mhar_0512
rubrerythrin	7.0	Mhar_1835
Triphosphoribosyl-dephospho-CoA protein	7.0	Mhar_1725
valyl-tRNA synthetase	7.0	Mhar_0033
hypothetical protein	7.0	Mhar_0636
Nucleic acid binding, OB-fold, tRNA/helicase-type	7.0	Mhar_0853
CuB-CoM heterodisulfide reductase, subunit C	7.0	Mhar_0605

hypothetical protein	7.0	Mhar_0015
hypothetical protein	7.0	Mhar_2288
AP endonuclease, family 2	7.0	Mhar_1585
Phenylacetate-coenzyme A ligase	7.0	Mhar_0638
ABC transporter ATP-binding protein	7.0	Mhar_0013
phosphoserine phosphatase	7.0	Mhar_1731
ribonuclease P protein component 4	7.0	Mhar_1176
Glucose-1-phosphate thymidyltransferase	7.0	Mhar_1098
AAA ATPase	7.0	Mhar_0908
hypothetical protein	7.0	Mhar_0661
Cache, type 2 domain protein	6.9	Mhar_1823
Acetylornithine aminotransferase	6.9	Mhar_0172
Ribose 1,5-bisphosphate isomerase	6.9	Mhar_2378
leucyl-tRNA synthetase	6.9	Mhar_1753
hypothetical protein	6.9	Mhar_0572
Molybdopterin synthase subunit MoaE	6.9	Mhar_1266
Transcriptional regulator TrmB, putative	6.9	Mhar_0077
Phenylacrylic acid decarboxylase	6.9	Mhar_1408
DNA topoisomerase I	6.9	Mhar_0494
Methyltransferase, putative	6.9	Mhar_0799
Oligosaccharyl transferase, STT3 subunit	6.9	Mhar_0540
Putative carbon monoxide dehydrogenase maturation factor	6.9	Mhar_1031
polypropenyl synthetase	6.9	Mhar_0721
Formylmethanofuran-tetrahydromethanopterin		
formyltransferase	6.9	Mhar_2214
SufBD protein	6.9	Mhar_0012
arginine biosynthesis protein ArgJ	6.9	Mhar_1636
Glycosyl transferase	6.9	Mhar_1053
transglycosylase	6.9	Mhar_0796
Multimeric flavodoxin WrbA	6.9	Mhar_1834
hypothetical protein	6.9	Mhar_0994
transposase	6.9	Mhar_1132
CRISPR-associated protein, Cmr4 family	6.9	Mhar_1710
Dihydroxy-acid dehydratase	6.9	Mhar_0558
hypothetical protein	6.9	Mhar_2104
hypothetical protein	6.9	Mhar_0344
hypothetical protein	6.9	Mhar_1046
amidohydrolase	6.9	Mhar_1002
hypothetical protein	6.9	Mhar_0133
Alkaline phosphatase family protein	6.9	Mhar_0409
Ribosomal-protein-alanine acetyltransferase	6.9	Mhar_1309
Phosphoesterase, RecJ domain protein	6.9	Mhar_0633
translation initiation factor 2 subunit gamma	6.9	Mhar_1909
pyridoxamine 5'-phosphate oxidase-like FMN-binding protein	6.9	Mhar_0045
Transposase IS200-like protein	6.9	Mhar_2197
hypothetical protein	6.9	Mhar_0734

Tungsten formylmethanofuran dehydrogenase, subunit C	6.9	Mhar_0373
hypothetical protein	6.9	Mhar_2387
hypothetical protein	6.8	Mhar_1871
Carbamoyl-phosphate synthase, small subunit	6.8	Mhar_0274
hypothetical protein	6.8	Mhar_2138
AAA ATPase	6.8	Mhar_1992
O-phosphoseryl-tRNA(Cys) synthetase	6.8	Mhar_0928
Farnesyl-diphosphate synthase/ geranylgeranyl-diphosphate synthase	6.8	Mhar_0987
hypothetical protein	6.8	Mhar_1553
ABC transporter ATP-binding protein	6.8	Mhar_0769
HesB/YadR/YfhF-family protein	6.8	Mhar_0748
hypothetical protein	6.8	Mhar_0754
Threonyl-tRNA synthetase	6.8	Mhar_1305
hypothetical protein	6.8	Mhar_1996
AAA ATPase	6.8	Mhar_1436
Putative thymidine phosphorylase	6.8	Mhar_0827
Putative Tungsten formylmethanofuran dehydrogenase, subunit E	6.8	Mhar_0798
hypothetical protein	6.8	Mhar_1399
hypothetical protein	6.8	Mhar_1822
Acetolactate synthase, large subunit	6.8	Mhar_1017
hypothetical protein	6.8	Mhar_0843
hypothetical protein	6.8	Mhar_0177
Flavodoxin/nitric oxide synthase	6.8	Mhar_2273
hypothetical protein	6.8	Mhar_0334
aspartyl/glutamyl-tRNA amidotransferase subunit C	6.8	Mhar_0304
ExsB family protein	6.8	Mhar_0500
Phenylalanyl-tRNA synthetase alpha subunit	6.8	Mhar_0542
hypothetical protein	6.8	Mhar_1163
hypothetical protein	6.8	Mhar_1299
ATP-dependent RNA helicase	6.8	Mhar_1445
hypothetical protein	6.8	Mhar_1060
hypothetical protein	6.8	Mhar_1663
Delta-aminolevulinic acid dehydratase	6.8	Mhar_0163
RNA-metabolising metallo-beta-lactamase	6.8	Mhar_0986
Type 2 DNA topoisomerase 6 subunit A	6.8	Mhar_0087
Phosphoribosylformylglycinamide synthase II	6.8	Mhar_1574
Nitrogen regulatory protein P-II	6.8	Mhar_0256
hydantoinase/oxoprolinase	6.8	Mhar_0666
Aspartokinase	6.7	Mhar_0300
S-layer protein	6.7	Mhar_1021
fructose 1,6-bisphosphatase	6.7	Mhar_2263
Cation periplasmic solute binding protein	6.7	Mhar_1998
histidinol dehydrogenase	6.7	Mhar_1486
hypothetical protein	6.7	Mhar_1813

Pentapeptide repeat protein	6.7	Mhar_0343
Periplasmic component of the Tol biopolymer transport system-like protein	6.7	Mhar_0112
Putative transcriptional regulator	6.7	Mhar_0288
radical SAM protein	6.7	Mhar_1274
ApbC/Nbp35 iron-sulfur cluster carrier protein	6.7	Mhar_1782
Ketoisovalerate oxidoreductase subunit	6.7	Mhar_0583
Tubulin/FtsZ, GTPase	6.7	Mhar_0003
hypothetical protein	6.7	Mhar_0936
hypothetical protein	6.7	Mhar_2338
hypothetical protein	6.7	Mhar_0042
hypothetical protein	6.7	Mhar_0766
hypothetical protein	6.7	Mhar_1186
Transposase, OrfB family, putative	6.7	Mhar_2203
hypothetical protein	6.7	Mhar_0420
Thermosome subunit	6.7	Mhar_2363
hypothetical protein	6.7	Mhar_1778
F420H2 dehydrogenase, subunit N	6.7	Mhar_1420
AAA ATPase	6.7	Mhar_2021
ABC transporter permease	6.7	Mhar_2109
hypothetical protein	6.7	Mhar_2318
aspartyl/glutamyl-tRNA amidotransferase subunit B	6.7	Mhar_0306
hypothetical protein	6.7	Mhar_1384
Oligopeptidase F, Metallo peptidase, MEROPS family M03B	6.7	Mhar_2100
Tetratricopeptide TPR_2	6.7	Mhar_0333
hypothetical protein	6.7	Mhar_1387
Fructose-1-phosphate kinase	6.7	Mhar_2266
hypothetical protein	6.7	Mhar_2078
Ser/Thr protein phosphatase family protein	6.7	Mhar_1154
Peptidase C1A, papain, putative	6.7	Mhar_2234
hypothetical protein	6.7	Mhar_0222
hypothetical protein	6.6	Mhar_2084
radical SAM protein	6.6	Mhar_0912
ABC transporter, substrate-binding protein, aliphatic sulfonates family	6.6	Mhar_1301
hypothetical protein	6.6	Mhar_1063
glutamyl-tRNA(Gln) amidotransferase subunit A	6.6	Mhar_0305
hypothetical protein	6.6	Mhar_2072
Fructose-bisphosphate aldolase	6.6	Mhar_2111
Alpha-acetolactate decarboxylase	6.6	Mhar_1484
hypothetical protein	6.6	Mhar_0571
hypothetical protein	6.6	Mhar_1451
hypothetical protein	6.6	Mhar_1242
Histone deacetylase family protein	6.6	Mhar_0665
hypothetical protein	6.6	Mhar_0905
putative tRNA pseudouridine synthase B	6.6	Mhar_0450

hypothetical protein	6.6	Mhar_1997
dTDP-4-dehydrorhamnose 3,5-epimerase	6.6	Mhar_1097
Anaerobic ribonucleoside-triphosphate reductase activating protein, putative	6.6	Mhar_1756
Efflux transporter, putative, hydrophobe/amphiphile efflux-3 (HAE3) family	6.6	Mhar_1769
Phosphate ABC transporter substrate-binding protein, PhoT family	6.6	Mhar_2129
Extracellular solute-binding protein, family 5	6.6	Mhar_1746
Hydroxymethylglutaryl-CoA synthase, putative	6.6	Mhar_2086
hypothetical protein	6.6	Mhar_1557
hypothetical protein	6.6	Mhar_1517
hypothetical protein	6.6	Mhar_1160
alanyl-tRNA synthetase	6.6	Mhar_1877
Stationary phase survival protein SurE	6.6	Mhar_1791
hypothetical protein	6.6	Mhar_1141
Oxidoreductase FAD/NAD	6.6	Mhar_1442
glutamine synthetase	6.6	Mhar_1514
hypothetical protein	6.6	Mhar_1531
hypothetical protein	6.6	Mhar_0481
Heat shock protein Hsp20	6.6	Mhar_1971
Iron-sulfur flavoprotein	6.6	Mhar_2361
hypothetical protein	6.6	Mhar_1337
PRC-barrel domain-containing protein	6.6	Mhar_0346
Phosphate ABC transporter substrate-binding protein, PhoT family	6.6	Mhar_0764
Universal stress protein	6.6	Mhar_0228
GvpD gas vesicle, putative	6.5	Mhar_1267
Phosphoribosylaminoimidazole-succinocarboxamide synthase, putative	6.5	Mhar_0716
Peptide chain release factor subunit 1	6.5	Mhar_1587
hypothetical protein	6.5	Mhar_2029
hypothetical protein	6.5	Mhar_1310
hypothetical protein	6.5	Mhar_1203
HxIR family transcriptional regulator	6.5	Mhar_0567
Adenylosuccinate lyase	6.5	Mhar_1256
GTP-binding/TGS domain protein	6.5	Mhar_0113
hypothetical protein	6.5	Mhar_1170
hypothetical protein	6.5	Mhar_1298
Phosphate regulatory protein-like protein	6.5	Mhar_2132
hypothetical protein	6.5	Mhar_0595
Tungsten formylmethanofuran dehydrogenase, subunit G	6.5	Mhar_2310
hypothetical protein	6.5	Mhar_0946
CRISPR-associated protein, Cmr6 family	6.5	Mhar_1708
Cell surface glycoprotein, putative	6.5	Mhar_1306
Hydrolase, TatD family	6.5	Mhar_1802

hypothetical protein	6.5	Mhar_0737
Chaperone protein DnaJ	6.5	Mhar_2125
Putative arsenical pump-driving ATPase	6.5	Mhar_0869
Ribose 5-phosphate isomerase	6.5	Mhar_0927
Putative helicase	6.5	Mhar_1506
nucleotidyltransferase	6.5	Mhar_2103
hypothetical protein	6.5	Mhar_0152
hypothetical protein	6.5	Mhar_1800
hypothetical protein	6.5	Mhar_2285
Universal stress protein	6.5	Mhar_2177
Indolepyruvate ferredoxin oxidoreductase, beta subunit	6.5	Mhar_1482
LL-diaminopimelate aminotransferase apoenzyme	6.5	Mhar_1754
hypothetical protein	6.5	Mhar_1479
ArsR family transcriptional regulator	6.5	Mhar_0445
Periplasmic binding protein	6.5	Mhar_1618
hypothetical protein	6.5	Mhar_1056
Cobalamin (Vitamin B12) biosynthesis CbiM protein	6.5	Mhar_2290
pyridoxal biosynthesis lyase pdxS	6.5	Mhar_0111
Aspartyl-tRNA synthetase	6.5	Mhar_0069
Peroxiredoxin, putative	6.5	Mhar_1795
hypothetical protein	6.5	Mhar_1435
ABC transporter permease	6.5	Mhar_2110
Adenylylsulfate kinase	6.4	Mhar_1239
cytidylate kinase	6.4	Mhar_0452
hypothetical protein	6.4	Mhar_2114
DNA gyrase subunit A	6.4	Mhar_2082
hypothetical protein	6.4	Mhar_2280
adenosylhomocysteinase	6.4	Mhar_0316
PmbA/TldD family protein	6.4	Mhar_0053
hypothetical protein	6.4	Mhar_0194
hypothetical protein	6.4	Mhar_0482
hypothetical protein	6.4	Mhar_0733
F420-0:gamma-glutamyl ligase	6.4	Mhar_1184
Threo-isocitrate dehydrogenase [NAD]	6.4	Mhar_1328
Carbamoyl-phosphate synthase, large subunit	6.4	Mhar_0273
hypothetical protein	6.4	Mhar_2291
daunorubicin resistance ABC transporter ATP-binding protein	6.4	Mhar_0894
Sulfide dehydrogenase (Flavoprotein) subunit SudB	6.4	Mhar_0996
DNA ligase	6.4	Mhar_1487
CaCA family Na+/Ca+ antiporter	6.4	Mhar_0505
S-layer protein	6.4	Mhar_0048
3,4-dihydroxy-2-butanone 4-phosphate synthase	6.4	Mhar_0036
ZPR1-related zinc finger protein	6.4	Mhar_0951
2-dehydropantoate 2-reductase	6.4	Mhar_0257
hypothetical protein	6.4	Mhar_0719
Cell surface protein	6.4	Mhar_1933

nucleotidyltransferase	6.4	Mhar_1493
hypothetical protein	6.4	Mhar_1268
D-alanine--D-alanine ligase	6.4	Mhar_1007
methyltransferase domain-containing protein	6.4	Mhar_1221
SOUL heme-binding protein	6.4	Mhar_0668
hypothetical protein	6.4	Mhar_1444
Ketoisovalerate ferredoxin oxidoreductase, alpha subunit	6.4	Mhar_0584
prolyl-tRNA synthetase	6.4	Mhar_1057
D-alanine--D-alanine ligase	6.4	Mhar_1008
shikimate 5-dehydrogenase	6.4	Mhar_1624
glycosyl transferase	6.4	Mhar_1990
hypothetical protein	6.4	Mhar_1922
Peptidase U62, modulator of DNA gyrase	6.4	Mhar_2019
hypothetical protein	6.4	Mhar_0165
Polysaccharide ABC transporter, permease protein	6.4	Mhar_1103
hypothetical protein	6.4	Mhar_2222
glutaredoxin	6.4	Mhar_2115
Beta-lactamase domain protein	6.4	Mhar_1311
hypothetical protein	6.4	Mhar_0910
Cysteine desulfurase NifS	6.4	Mhar_1207
hypothetical protein	6.4	Mhar_0004
3-dehydroquinate synthase	6.4	Mhar_0787
hypothetical protein	6.3	Mhar_0515
hypothetical protein	6.3	Mhar_1857
Biotin/acetyl-CoA-carboxylase ligase	6.3	Mhar_0862
CoB-CoM heterodisulfide reductase, subunit A	6.3	Mhar_0607
CRISPR-associated protein, Cmr1 family	6.3	Mhar_1713
Phosphopantothenoylcysteine		
decarboxylase/phosphopantothenate--cysteine ligase	6.3	Mhar_0608
pyridoxamine 5'-phosphate oxidase-like FMN-binding protein	6.3	Mhar_0044
hypothetical protein	6.3	Mhar_1344
hypothetical protein	6.3	Mhar_1726
MutT-like protein	6.3	Mhar_1246
hypothetical protein	6.3	Mhar_0124
hypothetical protein	6.3	Mhar_0520
hypothetical protein	6.3	Mhar_1728
hypothetical protein	6.3	Mhar_0030
peroxiredoxin family protein	6.3	Mhar_1087
hypothetical protein	6.3	Mhar_0768
DNA-binding protein	6.3	Mhar_0136
AMP-dependent acyl-CoA synthetase and ligase	6.3	Mhar_0918
hypothetical protein	6.3	Mhar_1847
Histone deacetylase family protein	6.3	Mhar_0826
radical SAM protein	6.3	Mhar_1894
hypothetical protein	6.3	Mhar_0449
hypothetical protein	6.3	Mhar_1876

hypothetical protein	6.3	Mhar_1860
hypothetical protein	6.3	Mhar_1085
Two component transcriptional regulator	6.3	Mhar_1790
Toxin-antitoxin system, antitoxin component, HicB family	6.3	Mhar_1028
hypothetical protein	6.3	Mhar_1536
putative fructose-1,6-bisphosphate aldolase	6.3	Mhar_2267
hypothetical protein	6.3	Mhar_0307
type I restriction-modification system specificity subunit	6.3	Mhar_1859
dTDP-4-dehydrorhamnose reductase	6.3	Mhar_1100
radical SAM protein	6.3	Mhar_0504
hypothetical protein	6.3	Mhar_1468
CTP synthase	6.3	Mhar_0090
hypothetical protein	6.3	Mhar_0270
hypothetical protein	6.3	Mhar_1724
hypothetical protein	6.3	Mhar_0034
hypothetical protein	6.3	Mhar_2168
Aldo/keto reductase	6.3	Mhar_1148
radical SAM protein	6.3	Mhar_0282
Thioredoxin reductase	6.3	Mhar_0226
Stage II sporulation SpolIE family protein	6.3	Mhar_1138
hypothetical protein	6.3	Mhar_1586
Signal sequence peptidase I	6.3	Mhar_0252
RDD domain-containing protein	6.2	Mhar_0590
putative membrane protein, containing TPR repeats	6.2	Mhar_0858
extracellular ligand-binding receptor	6.2	Mhar_0073
Adenine phosphoribosyltransferase	6.2	Mhar_1089
hypothetical protein	6.2	Mhar_1025
CRISPR-associated protein, Cmr2 family	6.2	Mhar_1712
hypothetical protein	6.2	Mhar_2171
Amino acid-binding ACT domain protein	6.2	Mhar_0396
PAS/PAC sensor signal transduction histidine kinase	6.2	Mhar_1766
putative secreted protein, NosD family	6.2	Mhar_2075
Elongation factor Tu, domain 2 protein	6.2	Mhar_1304
Beta-ribofuranosylaminobenzene 5'-phosphate synthase family	6.2	Mhar_2046
Peptidase M42 family protein	6.2	Mhar_2047
Carbon-monoxide dehydrogenase, catalytic subunit	6.2	Mhar_1630
hypothetical protein	6.2	Mhar_0422
hypothetical protein	6.2	Mhar_1816
LemA family protein	6.2	Mhar_1571
hypothetical protein	6.2	Mhar_0825
CODH nickel-insertion accessory protein	6.2	Mhar_0297
hypothetical protein	6.2	Mhar_0887
CoA-binding protein	6.2	Mhar_1466
quinolinate synthase A	6.2	Mhar_1331
Glycosyl transferase	6.2	Mhar_2012
hypothetical protein	6.2	Mhar_1270

hypothetical protein	6.2	Mhar_1194
hypothetical protein	6.2	Mhar_1320
hypothetical protein	6.2	Mhar_2105
hypothetical protein	6.2	Mhar_1467
4Fe-4S ferredoxin	6.2	Mhar_2344
Iron sulfur cluster/nucleotide binding domain protein	6.2	Mhar_1499
UvrABC system protein B	6.2	Mhar_1271
hypothetical protein	6.2	Mhar_0221
Carbamoyl-phosphate synthase, large subunit	6.2	Mhar_1715
hypothetical protein	6.2	Mhar_2170
histidinol-phosphate aminotransferase	6.2	Mhar_0171
Superoxide dismutase (Mn/Fe)	6.2	Mhar_0208
hypothetical protein	6.2	Mhar_0955
DNA repair and recombination protein RadB	6.2	Mhar_1727
UspA domain-containing protein	6.2	Mhar_1918
HD domain-containing protein	6.2	Mhar_1820
hypothetical protein	6.2	Mhar_1895
Cell surface protein	6.1	Mhar_0573
Thiamine biosynthesis protein ThiC	6.1	Mhar_0180
nucleoside-triphosphatase	6.1	Mhar_1178
hypothetical protein	6.1	Mhar_0974
Nitrogenase iron protein 1	6.1	Mhar_0047
NMD3 family protein	6.1	Mhar_1923
Nonspecific acid phosphatase	6.1	Mhar_1845
glycosyltransferase	6.1	Mhar_2017
hypothetical protein	6.1	Mhar_0108
HTH-type transcriptional regulatory protein, putative	6.1	Mhar_0185
Histone deacetylase family protein	6.1	Mhar_0851
Addiction module toxin, RelE/StbE family	6.1	Mhar_0175
Glutamine amidotransferase subunit pdxT	6.1	Mhar_0110
hypothetical protein	6.1	Mhar_1395
Polysaccharide ABC transporter ATP-binding protein	6.1	Mhar_1104
class I and II aminotransferase	6.1	Mhar_2329
hypothetical protein	6.1	Mhar_1500
ATPase associated with various cellular activities	6.1	Mhar_1140
Glycerol-1-phosphate dehydrogenase [NAD(P)]	6.1	Mhar_0956
hypothetical protein	6.1	Mhar_1959
hypothetical protein	6.1	Mhar_1593
haloacid dehalogenase domain-containing protein hydrolase	6.1	Mhar_1294
hypothetical protein	6.1	Mhar_0513
Threonine synthase	6.1	Mhar_1072
CoB-CoM heterodisulfide reductase, subunit B	6.1	Mhar_0604
hypothetical protein	6.1	Mhar_1693
Cna B domain-containing protein	6.1	Mhar_0337
hypothetical protein	6.1	Mhar_0820
DNA polymerase II, large subunit DP2	6.1	Mhar_1644

glutamyl-tRNA(Gln) amidotransferase subunit E	6.1	Mhar_0400
hypothetical protein	6.1	Mhar_1130
hypothetical protein	6.1	Mhar_1848
Sep-tRNA:Cys-tRNA synthase	6.1	Mhar_0427
acylphosphatase	6.1	Mhar_1076
hypothetical protein	6.1	Mhar_0437
TPR-repeat protein	6.1	Mhar_0641
Molybdopterin synthase subunit MoaD	6.1	Mhar_1261
Pentapeptide repeat protein	6.1	Mhar_0575
Thiamine biosynthesis protein ThiC	6.0	Mhar_0017
Putative cache sensor protein	6.0	Mhar_0624
hypothetical protein	6.0	Mhar_0587
Mevalonate kinase	6.0	Mhar_0983
6,7-dimethyl-8-ribityllumazine synthase	6.0	Mhar_1382
tRNA(His)-5'-guanylyltransferase	6.0	Mhar_0345
histidyl-tRNA synthetase	6.0	Mhar_0354
Uroporphyrinogen III synthase/methyltransferase	6.0	Mhar_1275
hypothetical protein	6.0	Mhar_1817
Nucleoside recognition domain protein	6.0	Mhar_0786
hypothetical protein	6.0	Mhar_1371
hypothetical protein	6.0	Mhar_2204
DNA polymerase beta domain-containing protein region	6.0	Mhar_1828
creatininase	6.0	Mhar_0541
Appr-1-p processing protein	6.0	Mhar_1006
hypothetical protein	6.0	Mhar_0370
type 2 DNA topoisomerase 6 subunit B	6.0	Mhar_0086
enolase	6.0	Mhar_2079
deoxyhypusine synthase	6.0	Mhar_1409
Lipoprotein-releasing system, ABC transporter, ATP-binding protein	6.0	Mhar_2108
membrane protein	6.0	Mhar_1864
DNA methylase N-4/N-6 domain-containing protein	6.0	Mhar_0162
Acetylglutamate kinase	6.0	Mhar_2277
Periplasmic binding protein	6.0	Mhar_0806
Iron-dependent repressor	6.0	Mhar_0265
hypothetical protein	6.0	Mhar_1105
hypothetical protein	6.0	Mhar_0335
4Fe-4S ferredoxin	6.0	Mhar_1626
PUA domain protein	6.0	Mhar_1965
putative aconitase subunit 1	6.0	Mhar_1472
Transcriptional regulatory protein, AsnC family	6.0	Mhar_0321
2-phospho-L-lactate guanylyltransferase	6.0	Mhar_1185
CRISPR-associated protein, Cmr3 family	6.0	Mhar_1711
hypothetical protein	6.0	Mhar_0041
radical SAM protein	6.0	Mhar_0563
hypothetical protein	6.0	Mhar_1566

isoprenylcysteine carboxyl methyltransferase	6.0	Mhar_0178
hypothetical protein	6.0	Mhar_1139
Iron(III) ABC transporter, ATP-binding protein	6.0	Mhar_1032
XRE family transcriptional regulator	6.0	Mhar_2087
Transposase, IS605 OrfB family	6.0	Mhar_2198
Putative methanogenesis marker protein 8	6.0	Mhar_0291
Transposase, IS605 OrfB family	6.0	Mhar_1873
glutamyl-tRNA synthetase	6.0	Mhar_1247
glyoxalase	6.0	Mhar_0844
Phosphoglucomutase/phosphomannomutase	6.0	Mhar_2062
putative endonuclease 4	6.0	Mhar_1518
hypothetical protein	6.0	Mhar_0039
Hydroxymethylbilane synthase	6.0	Mhar_1276
hypothetical protein	6.0	Mhar_0593
Glycyl-tRNA synthetase	6.0	Mhar_0277
Ribulose-1,5-bisphosphate carboxylase/oxygenase large subunit	6.0	Mhar_2262
hypothetical protein	6.0	Mhar_0109
hypothetical protein	6.0	Mhar_0777
hypothetical protein	6.0	Mhar_2237
hypothetical protein	5.9	Mhar_1152
hypothetical protein	5.9	Mhar_1368
hypothetical protein	5.9	Mhar_1601
Di-trans,poly-cis-decaprenylcistransferase	5.9	Mhar_1863
cobalt ABC transporter protein CbiN	5.9	Mhar_0649
ATPase	5.9	Mhar_1830
Lipoprotein, putative	5.9	Mhar_1427
hypothetical protein	5.9	Mhar_0603
FLAP endonuclease	5.9	Mhar_0747
Aminotransferase	5.9	Mhar_0486
Nitroreductase	5.9	Mhar_0289
hypothetical protein	5.9	Mhar_1449
Transcriptional regulator, CopG family	5.9	Mhar_1349
Prephenate dehydratase	5.9	Mhar_2044
Periplasmic binding protein	5.9	Mhar_1610
hypothetical protein	5.9	Mhar_1972
Phosphate binding protein	5.9	Mhar_0402
Triose-phosphate isomerase	5.9	Mhar_1075
Agmatinase	5.9	Mhar_0698
hypothetical protein	5.9	Mhar_0553
Serine hydroxymethyltransferase	5.9	Mhar_1205
FAD-dependent pyridine nucleotide-disulfide oxidoreductase	5.9	Mhar_0389
AsnC family transcriptional regulator	5.9	Mhar_1254
hypothetical protein	5.9	Mhar_2053
Tungsten formylmethanofuran dehydrogenase, subunit B	5.9	Mhar_2309
hypothetical protein	5.9	Mhar_1264
Arginine decarboxylase	5.9	Mhar_2140

hypothetical protein	5.8	Mhar_1050
V-type ATP synthase subunit beta	5.8	Mhar_0242
Formate dehydrogenase, subunit A	5.8	Mhar_1628
Formaldehyde-activating enzyme, tetrahydromethanopterin-dependent	5.8	Mhar_0339
hypothetical protein	5.8	Mhar_1699
Archaeosine tRNA-ribosyltransferase	5.8	Mhar_0739
Methenyltetrahydromethanopterin cyclohydrolase	5.8	Mhar_2174
Cobalamin biosynthesis protein CbiM	5.8	Mhar_0650
Daunorubicin resistance ATP-binding protein family	5.8	Mhar_1761
3-isopropylmalate dehydratase large subunit	5.8	Mhar_2250
Tungsten formylmethanofuran dehydrogenase, subunit B	5.8	Mhar_0375
Deoxyribodipyrimidine photo-lyase (DNA photolyase)(Photoreactivating enzyme)	5.8	Mhar_1131
Phosphoribosylaminoimidazole carboxylase related protein radical SAM protein	5.8	Mhar_0646
N2,N2-dimethylguanosine tRNA methyltransferase	5.8	Mhar_1783
Peptidase domain protein	5.8	Mhar_0029
Phosphoribosylamine--glycine ligase	5.8	Mhar_0723
hypothetical protein	5.8	Mhar_1513
putative ribosomal RNA small subunit methyltransferase A	5.8	Mhar_1404
Indole-3-glycerol phosphate synthase	5.8	Mhar_0815
hypothetical protein	5.8	Mhar_1978
hypothetical protein	5.8	Mhar_1471
hypothetical protein	5.8	Mhar_1173
hypothetical protein	5.8	Mhar_0315
putative L-aspartate dehydrogenase	5.8	Mhar_0006
hypothetical protein	5.8	Mhar_0552
sulfatase	5.8	Mhar_1850
hypothetical protein	5.8	Mhar_1504
Metal dependent phosphohydrolase	5.8	Mhar_1902
Formate dehydrogenase subunit B	5.8	Mhar_1627
hypothetical protein	5.8	Mhar_1688
pantothenate synthetase	5.8	Mhar_0610
Pyridoxamine 5'-phosphate oxidase family protein	5.8	Mhar_0864
hypothetical protein	5.8	Mhar_0939
Formylmethanofuran dehydrogenase, subunit F	5.8	Mhar_0606
5,10-methylenetetrahydromethanopterin reductase	5.8	Mhar_0856
3-isopropylmalate dehydratase small subunit	5.8	Mhar_2395
Redox-active disulfide protein 2	5.8	Mhar_1543
AbrB family transcriptional regulator	5.8	Mhar_0922
Bifunctional protein Fold	5.8	Mhar_1204
hypothetical protein	5.8	Mhar_0070
Molybdenum formylmethanofuran dehydrogenase, subunit E	5.8	Mhar_1288
hypothetical protein	5.8	Mhar_2183
Asparagine synthase	5.8	Mhar_1645
hypothetical protein	5.8	Mhar_0404

hypothetical protein	5.8	Mhar_1024
Glycosyl transferase family 2	5.8	Mhar_2008
Na+/solute symporter	5.8	Mhar_1679
Chromosome segregation protein SMC	5.8	Mhar_0506
Universal stress protein	5.8	Mhar_2049
Cobyricic Acid a,c-diamide synthase	5.8	Mhar_0046
Phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase-like protein	5.8	Mhar_0839
hypothetical protein	5.8	Mhar_1900
Restriction modification system DNA specificity domain protein	5.8	Mhar_1858
hypothetical protein	5.8	Mhar_2026
signal recognition particle protein	5.8	Mhar_0961
hypothetical protein	5.8	Mhar_1742
hypothetical protein	5.8	Mhar_1369
Aspartate-semialdehyde dehydrogenase	5.8	Mhar_0913
ATP-NAD/AcoX kinase	5.8	Mhar_2252
hypothetical protein	5.8	Mhar_0525
hypothetical protein	5.8	Mhar_2147
4Fe-4S ferredoxin	5.8	Mhar_2264
Tungsten formylmethanofuran dehydrogenase, subunit A	5.7	Mhar_0374
ABC transporter ATP-binding protein	5.7	Mhar_0805
NAD-dependent malic enzyme	5.7	Mhar_0200
Alkyl sulfatase	5.7	Mhar_1844
L-threonine O-3-phosphate decarboxylase	5.7	Mhar_2330
carbonate dehydratase	5.7	Mhar_0435
ArsR family transcriptional regulator	5.7	Mhar_2223
diaminopimelate decarboxylase	5.7	Mhar_0118
Thiolase	5.7	Mhar_2085
Aconitate hydratase, putative	5.7	Mhar_0740
glutaredoxin	5.7	Mhar_0397
Rhodanese domain-containing protein	5.7	Mhar_1455
hypothetical protein	5.7	Mhar_1153
ATP-citrate lyase subunit A	5.7	Mhar_1526
V-type ATP synthase subunit D	5.7	Mhar_0243
HesB/YadR/YfhF-family protein	5.7	Mhar_2333
hypothetical protein	5.7	Mhar_1908
hypothetical protein	5.7	Mhar_0312
NADPH-dependent FMN reductase	5.7	Mhar_0075
hypothetical protein	5.7	Mhar_0026
hypothetical protein	5.7	Mhar_0619
Putative methanogenesis marker protein 11	5.7	Mhar_1927
hypothetical protein	5.7	Mhar_2334
hypothetical protein	5.7	Mhar_0762
ABC transporter ATP-binding protein	5.7	Mhar_0884
hypothetical protein	5.7	Mhar_0982
deoxyhypusine synthase	5.7	Mhar_2141

hypothetical protein	5.7	Mhar_1903
lysyl-tRNA synthetase	5.7	Mhar_0120
hypothetical protein	5.7	Mhar_1071
HEPN domain-containing protein	5.7	Mhar_1641
XRE family transcriptional regulator	5.7	Mhar_0938
membrane protein	5.7	Mhar_1796
hypothetical protein	5.7	Mhar_0880
WD repeat protein	5.7	Mhar_2080
hypothetical protein	5.7	Mhar_1292
Dihydroorotate oxidase B, catalytic subunit	5.7	Mhar_1443
O-sialoglycoprotein endopeptidase	5.6	Mhar_1512
2-amino-3,7-dideoxy-D-threo-hept-6-ulosonate synthase	5.6	Mhar_1906
radical SAM protein	5.6	Mhar_0535
hypothetical protein	5.6	Mhar_1885
Putative type II DNA modification enzyme	5.6	Mhar_1682
Aldehyde ferredoxin oxidoreductase	5.6	Mhar_2265
hypothetical protein	5.6	Mhar_1426
hypothetical protein	5.6	Mhar_0724
hypothetical protein	5.6	Mhar_0181
Amino acid/polyamine/organocation transporter, APC superfamily	5.6	Mhar_1012
hypothetical protein	5.6	Mhar_1561
ATP phosphoribosyltransferase	5.6	Mhar_0874
transcriptional regulator	5.6	Mhar_0989
hypothetical protein	5.6	Mhar_1576
hypothetical protein	5.6	Mhar_2113
hypothetical protein	5.6	Mhar_1570
Type I site-specific deoxyribonuclease chain R	5.6	Mhar_1856
4Fe-4S ferredoxin	5.6	Mhar_1465
putative transporter protein	5.6	Mhar_0555
arginyl-tRNA synthetase	5.6	Mhar_1973
imidazoleglycerol-phosphate dehydratase	5.6	Mhar_0350
hypothetical protein	5.6	Mhar_1589
Polysaccharide biosynthesis protein	5.6	Mhar_2016
Di-trans,poly-cis-decaprenylcisternase	5.6	Mhar_2350
Methylthioribose-1-phosphate isomerase	5.6	Mhar_0926
Putative signal-transduction protein with CBS domains	5.6	Mhar_0544
hypothetical protein	5.6	Mhar_0521
Cation ABC transporter, ATP-binding protein	5.6	Mhar_1999
hypothetical protein	5.6	Mhar_1206
Methyltransferase	5.6	Mhar_0807
LPS glycosyltransferase, putative	5.6	Mhar_2011
Glycosyl transferase family 2	5.6	Mhar_2018
Universal stress protein	5.6	Mhar_0234
glycosyl transferase	5.6	Mhar_2063
hypothetical protein	5.6	Mhar_0105

diaminopimelate epimerase	5.6	Mhar_1870
hypothetical protein	5.6	Mhar_0715
Cmr5 family CRISPR-associated protein	5.6	Mhar_1709
tRNA pseudouridine synthase A	5.6	Mhar_2249
hypothetical protein	5.6	Mhar_1146
Dihydropteroate synthase	5.6	Mhar_2004
LPPG:Fo 2-phospho-L-lactate transferase	5.6	Mhar_0950
Tungsten formylmethanofuran dehydrogenase, subunit D	5.6	Mhar_0376
Putative methanogenesis marker protein 10	5.6	Mhar_0503
AAA ATPase	5.6	Mhar_1015
Sulfite reductase, beta subunit	5.6	Mhar_0192
Formate dehydrogenase family accessory protein FdhD	5.6	Mhar_2355
Ribose-phosphate pyrophosphokinase	5.6	Mhar_0052
Nuclease (SNase domain protein)	5.6	Mhar_1342
hypothetical protein	5.5	Mhar_0917
Peptidase C1A, papain, putative	5.5	Mhar_1111
hypothetical protein	5.5	Mhar_1398
TPR-repeat protein	5.5	Mhar_0735
Putative CopG/Arc/MetJ family transcriptional regulator	5.5	Mhar_0532
Phenylacetic acid degradation protein PaaD	5.5	Mhar_0620
hypothetical protein	5.5	Mhar_2282
catalase	5.5	Mhar_0135
hypothetical protein	5.5	Mhar_0478
hypothetical protein	5.5	Mhar_0997
Glycogen synthase	5.5	Mhar_1987
hypothetical protein	5.5	Mhar_1666
Iron sulfur cluster/nucleotide binding domain protein	5.5	Mhar_1498
hypothetical protein	5.5	Mhar_1062
hypothetical protein	5.5	Mhar_1209
2,3-bisphosphoglycerate-independent phosphoglycerate mutase	5.5	Mhar_1889
Putative anti-sigma factor antagonist	5.5	Mhar_2301
Peroxiredoxin, putative	5.5	Mhar_0206
DNA mismatch repair protein MutS	5.5	Mhar_0322
ATPase (AAA+ superfamily)-like protein	5.5	Mhar_0662
Aspartate aminotransferase	5.5	Mhar_0696
Aspartate aminotransferase	5.5	Mhar_1381
Magnesium-chelatase subunit ChlD	5.5	Mhar_1615
ArsR family transcriptional regulator	5.5	Mhar_1538
ornithine carbamoyltransferase	5.5	Mhar_2307
Nodulation efficiency protein NfeD	5.5	Mhar_1917
PHP C-terminal domain-containing protein	5.5	Mhar_1743
2-oxoglutarate ferredoxin oxidoreductase beta subunit	5.5	Mhar_1373
hypothetical protein	5.5	Mhar_1569
Ribose-1,5-bisphosphate isomerase, e2b2 family	5.5	Mhar_2272
Prenyltransferase, UbiA family	5.5	Mhar_1495
Thymidylate synthase, methanogen type	5.5	Mhar_0211

Periplasmic binding protein	5.5	Mhar_1035
N-6 DNA methylase	5.5	Mhar_2209
hypothetical protein	5.5	Mhar_1074
D-tyrosyl-tRNA(Tyr) deacylase	5.5	Mhar_1253
RNA-metabolising metallo-beta-lactamase	5.5	Mhar_0695
L-alanine dehydrogenase	5.5	Mhar_1157
Inositol-1-monophosphatase family protein	5.5	Mhar_1678
hypothetical protein	5.5	Mhar_0514
DNA primase, large subunit	5.5	Mhar_0393
Fumarase, alpha subunit	5.5	Mhar_1503
ADP-ribosylglycohydrolase superfamily	5.5	Mhar_1633
hypothetical protein	5.5	Mhar_0683
hypothetical protein	5.5	Mhar_0255
FO synthase subunit 2	5.5	Mhar_0763
hypothetical protein	5.5	Mhar_2372
hypothetical protein	5.5	Mhar_0967
DNA polymerase beta domain-containing protein region	5.5	Mhar_1701
Uroporphyrin-III C/tetrapyrrole methyltransferase	5.5	Mhar_0214
hypothetical protein	5.5	Mhar_2150
hypothetical protein	5.5	Mhar_1991
hypothetical protein	5.5	Mhar_1690
hypothetical protein	5.5	Mhar_0948
Beta-lactamase domain protein	5.5	Mhar_1606
hypothetical protein	5.5	Mhar_0670
hypothetical protein	5.5	Mhar_1521
Tryptophan synthase subunit beta	5.4	Mhar_1976
rubrerythrin	5.4	Mhar_0183
hypothetical protein	5.4	Mhar_1809
hypothetical protein	5.4	Mhar_1201
hypothetical protein	5.4	Mhar_0516
hypothetical protein	5.4	Mhar_0602
type II site-specific deoxyribonuclease	5.4	Mhar_0161
hypothetical protein	5.4	Mhar_1193
hypothetical protein	5.4	Mhar_1453
Pyruvate flavodoxin/ferredoxin oxidoreductase domain protein	5.4	Mhar_1372
phosphoglycerate kinase	5.4	Mhar_1322
Putative circadian clock protein, KaiC	5.4	Mhar_1986
hypothetical protein	5.4	Mhar_1865
von Willebrand factor, type A	5.4	Mhar_2173
hypothetical protein	5.4	Mhar_2228
PBS lyase HEAT domain-containing protein repeat-containing protein	5.4	Mhar_0898
putative 3-phosphoshikimate 1-carboxyvinyltransferase	5.4	Mhar_0814
Isopentenyl-diphosphate delta-isomerase, type 2	5.4	Mhar_0985
4Fe-4S ferredoxin	5.4	Mhar_2015
N-terminal domain intergin-like repeats and c-terminal-cell wall-	5.4	Mhar_1390

associated hydrolase domain protein		
Rubredoxin	5.4	Mhar_2116
Histone deacetylase family protein	5.4	Mhar_0561
hypothetical protein	5.4	Mhar_1640
hypothetical protein	5.4	Mhar_0244
hypothetical protein	5.4	Mhar_1829
Ribonuclease Z	5.4	Mhar_1789
Thiamine biosynthesis/tRNA modification protein Thil	5.4	Mhar_1535
Glutamine synthase	5.4	Mhar_1951
hypothetical protein	5.4	Mhar_0134
hypothetical protein	5.4	Mhar_2236
hypothetical protein	5.4	Mhar_0677
UbiD family decarboxylase	5.4	Mhar_2380
Chromosome segregation and condensation protein ScpA	5.4	Mhar_0507
hypothetical protein	5.4	Mhar_0001
hypothetical protein	5.4	Mhar_0332
hypothetical protein	5.4	Mhar_1353
Transposase, IS605 OrfB family	5.4	Mhar_1086
hypothetical protein	5.4	Mhar_0151
Helicase domain protein	5.4	Mhar_0657
hypothetical protein	5.4	Mhar_2194
Iron sulfur flavoprotein	5.4	Mhar_0794
hypothetical protein	5.4	Mhar_1020
hypothetical protein	5.4	Mhar_1707
Peptidase families S8 and S53 protein	5.4	Mhar_2195
Putative signal transduction protein with CBS domains	5.4	Mhar_1635
Phosphate binding protein	5.4	Mhar_0407
geranylgeranyl reductase	5.4	Mhar_2172
hypothetical protein	5.4	Mhar_0964
S-layer protein	5.4	Mhar_0867
hypothetical protein	5.4	Mhar_1446
Nucleoside-triphosphatase THEP1	5.4	Mhar_0011
hypothetical protein	5.4	Mhar_2314
hypothetical protein	5.4	Mhar_0937
hypothetical protein	5.4	Mhar_1741
hypothetical protein	5.4	Mhar_1107
hypothetical protein	5.4	Mhar_1385
hypothetical protein	5.4	Mhar_1697
5-carboxymethyl-2-hydroxymuconate delta-isomerase	5.3	Mhar_1441
hypothetical protein	5.3	Mhar_1005
dTDP-glucose 4,6-dehydratase	5.3	Mhar_1099
Formate dehydrogenase, alpha subunit (F420)	5.3	Mhar_0325
Adenylyl cyclase CyaB, putative	5.3	Mhar_0032
hypothetical protein	5.3	Mhar_1136
hypothetical protein	5.3	Mhar_0040
Molybdopterin-guanine dinucleotide biosynthesis protein,	5.3	Mhar_1202

putative			
digeranylgeranylglycerophospholipid reductase	5.3	Mhar_1078	
5-methylthioadenosine/S-adenosylhomocysteine deaminase	5.3	Mhar_1452	
hypothetical protein	5.3	Mhar_2067	
Rhodanese domain-containing protein	5.3	Mhar_1559	
DNA primase small subunit	5.3	Mhar_0060	
hypothetical protein	5.3	Mhar_0245	
nicotinamidase	5.3	Mhar_1752	
CMP/dCMP deaminase zinc-binding protein	5.3	Mhar_0119	
hypothetical protein	5.3	Mhar_0617	
hypothetical protein	5.3	Mhar_0102	
hypothetical protein	5.3	Mhar_2335	
NADPH-dependent F420 reductase	5.3	Mhar_0028	
hypothetical protein	5.3	Mhar_0834	
hypothetical protein	5.3	Mhar_0838	
Transporter, small conductance mechanosensitive ion channel (MscS) family	5.3	Mhar_0891	
Tetratricopeptide TPR_2	5.3	Mhar_2025	
hypothetical protein	5.3	Mhar_0061	
hypothetical protein	5.3	Mhar_1560	
ArsR family transcriptional regulator	5.3	Mhar_2022	
Phenylalanyl-tRNA synthetase, beta subunit	5.3	Mhar_0543	
ABC transporter ATP-binding protein	5.3	Mhar_1115	
Radical SAM domain family protein	5.3	Mhar_0117	
Protein ArsC (Arsenate reductase) (Arsenical pumpmodifier)	5.3	Mhar_0501	
hypothetical protein	5.3	Mhar_2121	
Putative phosphatase, PHP family	5.3	Mhar_0963	
hypothetical protein	5.3	Mhar_1961	
hypothetical protein	5.3	Mhar_0821	
hypothetical protein	5.3	Mhar_0664	
radical SAM protein	5.3	Mhar_1721	
hypothetical protein	5.3	Mhar_0431	
hypothetical protein	5.3	Mhar_0785	
ribosomal RNA large subunit methyltransferase E	5.3	Mhar_2061	
S-layer protein	5.3	Mhar_1810	
hypothetical protein	5.3	Mhar_2385	
hypothetical protein	5.3	Mhar_0524	
Oligosaccharyl transferase, STT3 subunit	5.3	Mhar_1091	
Peptidase S1 and S6, chymotrypsin/Hap	5.3	Mhar_2152	
hypothetical protein	5.3	Mhar_2374	
hypothetical protein	5.3	Mhar_1528	
Extracellular solute-binding protein, family 5	5.3	Mhar_1222	
hypothetical protein	5.3	Mhar_0993	
hypothetical protein	5.3	Mhar_0107	
KamA family protein	5.3	Mhar_1745	
Peptidase C1A, papain, putative	5.2	Mhar_1124	

hypothetical protein	5.2	Mhar_1070
hypothetical protein	5.2	Mhar_1598
hypothetical protein	5.2	Mhar_0645
hypothetical protein	5.2	Mhar_2037
hypothetical protein	5.2	Mhar_1177
hypothetical protein	5.2	Mhar_1462
Digeranylgeranylglycerol phosphate synthase	5.2	Mhar_1249
Zinc/iron ZIP family permease	5.2	Mhar_0907
Peptide methionine sulfoxide reductase MsrA	5.2	Mhar_1603
Cell surface protein, putative	5.2	Mhar_1904
hypothetical protein	5.2	Mhar_1886
hypothetical protein	5.2	Mhar_1786
V-type ATP synthase subunit E	5.2	Mhar_0238
Addiction module toxin, RelE/StbE family, putative	5.2	Mhar_0923
Restriction endonuclease	5.2	Mhar_0701
Transposase, IS605 OrfB family	5.2	Mhar_1137
Nucleotide binding protein, putative, containing PIN domain	5.2	Mhar_1478
hypothetical protein	5.2	Mhar_0901
Periplasmic binding protein	5.2	Mhar_0808
Cation transporter	5.2	Mhar_1930
hypothetical protein	5.2	Mhar_1967
hypothetical protein	5.2	Mhar_0631
hypothetical protein	5.2	Mhar_0403
Tetratricopeptide TPR_2	5.2	Mhar_2027
glycosyl transferase	5.2	Mhar_1093
pyridoxamine 5'-phosphate oxidase-like FMN-binding protein	5.2	Mhar_1172
Peptidase M24	5.2	Mhar_0198
Multi-sensor signal transduction histidine kinase	5.2	Mhar_0446
putative membrane protein, containing TPR repeats	5.2	Mhar_1759
Excinuclease ABC, subunit A	5.2	Mhar_0612
radical SAM protein	5.2	Mhar_0502
putative inorganic polyphosphate/ATP-NAD kinase	5.2	Mhar_1677
Putative Ski2-type helicase	5.2	Mhar_1755
hypothetical protein	5.2	Mhar_1293
Metallo-beta-lactamase domain protein	5.2	Mhar_0179
Na+/solute symporter	5.2	Mhar_0621
hypothetical protein	5.2	Mhar_1129
hypothetical protein	5.2	Mhar_2057
GMP synthase subunit A	5.2	Mhar_0341
nicotinamide-nucleotide adenylyltransferase	5.2	Mhar_0857
hypothetical protein	5.1	Mhar_1191
Dihydrolipoamide dehydrogenase	5.1	Mhar_2119
hypothetical protein	5.1	Mhar_0611
RNA binding S1 domain-containing protein	5.1	Mhar_1819
Phosphoribulokinase/uridine kinase family	5.1	Mhar_0184
Mn ²⁺ -dependent serine/threonine protein kinase	5.1	Mhar_0365

HAD-superfamily hydrolase	5.1	Mhar_0906
hypothetical protein	5.1	Mhar_0676
ABC transporter ATP-binding protein	5.1	Mhar_1045
30S ribosomal protein S27ae	5.1	Mhar_1915
NAD(P)H dehydrogenase (Quinone)	5.1	Mhar_1480
glycerophosphoryl diester phosphodiesterase	5.1	Mhar_0428
Transporter, major facilitator family	5.1	Mhar_1799
type 11 methyltransferase	5.1	Mhar_2007
Na+/Pi-cotransporter	5.1	Mhar_2393
Multi-sensor signal transduction histidine kinase	5.1	Mhar_2042
Cytidine deaminase	5.1	Mhar_2006
MoeB/thiF molybdopterin or thiamine synthase protein	5.1	Mhar_1262
hypothetical protein	5.1	Mhar_0824
Archaeal sugar kinase, putative	5.1	Mhar_0292
Lipoprotein, putative	5.1	Mhar_0311
hypothetical protein	5.1	Mhar_0828
ribonuclease P protein component 3	5.1	Mhar_2167
hypothetical protein	5.1	Mhar_0439
lysine exporter protein LysE/YggA	5.1	Mhar_1055
Cation ABC-3 transport family protein	5.1	Mhar_2000
Transcriptional regulator, Fur family	5.1	Mhar_0205
ABC transporter ATP-binding protein	5.1	Mhar_0957
hypothetical protein	5.1	Mhar_1653
Multi-sensor signal transduction histidine kinase	5.1	Mhar_0935
Acetyl-CoA hydrolase/N-acetyltransferase GNAT family fusion protein	5.1	Mhar_2362
DNA polymerase beta domain-containing protein region	5.1	Mhar_1700
shikimate kinase	5.1	Mhar_2052
hypothetical protein	5.1	Mhar_1689
cation-transporting ATPase	5.1	Mhar_0973
Putative methyltransferase mtx subunit X	5.1	Mhar_1763
hypothetical protein	5.1	Mhar_1134
hypothetical protein	5.1	Mhar_1476
hypothetical protein	5.1	Mhar_1167
Divergent AAA domain family	5.1	Mhar_0658
Thymidylate synthase	5.1	Mhar_0566
hypothetical protein	5.0	Mhar_2245
hypothetical protein	5.0	Mhar_1620
Phosphoribosyltransferase	5.0	Mhar_0417
NH(3)-dependent NAD(+) synthetase	5.0	Mhar_1490
Xanthine/uracil permease	5.0	Mhar_2304
ABC transporter ATP-binding protein	5.0	Mhar_1616
hypothetical protein	5.0	Mhar_2296
hypothetical protein	5.0	Mhar_0538
Peptidase S8 and S53, subtilisin, putative	5.0	Mhar_0024
hypothetical protein	5.0	Mhar_0699

hypothetical protein	5.0	Mhar_0881
hypothetical protein	5.0	Mhar_2023
Transporter, major facilitator family	5.0	Mhar_0436
hypothetical protein	5.0	Mhar_0779
hypothetical protein	5.0	Mhar_2148
precorrin-8X methylmutase	5.0	Mhar_0218
Polysaccharide pyruvyl transferase	5.0	Mhar_2014
Cobalamin biosynthesis protein	5.0	Mhar_2332
hypothetical protein	5.0	Mhar_1747
hypothetical protein	5.0	Mhar_1960
hypothetical protein	5.0	Mhar_1548
Molybdenum cofactor biosynthesis protein	5.0	Mhar_0391
Putative type A flavoprotein	5.0	Mhar_1594
Ser/Thr protein phosphatase family protein	5.0	Mhar_1568
O-methyltransferase involved in polyketide biosynthesis	5.0	Mhar_1150
RNA 3'-terminal phosphate cyclase	5.0	Mhar_1312
hypothetical protein	5.0	Mhar_1200
hypothetical protein	5.0	Mhar_1717
hypothetical protein	5.0	Mhar_2276
glucokinase	5.0	Mhar_0897
Phosphomethylpyrimidine kinase	5.0	Mhar_1899
hypothetical protein	5.0	Mhar_1464
iron chelate uptake ABC transporter permease	5.0	Mhar_0804
hypothetical protein	5.0	Mhar_0774
hypothetical protein	5.0	Mhar_0622
hypothetical protein	5.0	Mhar_2383
DJ-1 family protein	5.0	Mhar_0932
hypothetical protein	5.0	Mhar_1774
4Fe-4S ferredoxin	5.0	Mhar_2065
hypothetical protein	5.0	Mhar_1880
type 11 methyltransferase	5.0	Mhar_2009
Major facilitator superfamily MFS_1	5.0	Mhar_1767
DOMON domain-containing protein	5.0	Mhar_1825
Hydroxymethylglutaryl-CoA reductase, degradative	5.0	Mhar_2045
CutA1 divalent ion tolerance protein	4.9	Mhar_1370
Orotidine 5'-phosphate decarboxylase	4.9	Mhar_2123
Lipoprotein, putative	4.9	Mhar_0718
Putative aminopeptidase	4.9	Mhar_2099
radical SAM protein	4.9	Mhar_0720
hypothetical protein	4.9	Mhar_1330
Putative methanogenesis marker protein 12	4.9	Mhar_0949
adenosylcobinamide-phosphate guanylyltransferase	4.9	Mhar_2320
ArsR family transcriptional regulator	4.9	Mhar_1558
group 1 glycosyl transferase	4.9	Mhar_1095
ABC transporter	4.9	Mhar_0770
Molybdenum formylmethanofuran dehydrogenase subunit C	4.9	Mhar_1285

Chorismate synthase	4.9	Mhar_0390
hypothetical protein	4.9	Mhar_0158
radical SAM protein	4.9	Mhar_2346
hypothetical protein	4.9	Mhar_1781
Molybdenum cofactor synthesis domain protein	4.9	Mhar_0363
hypothetical protein	4.9	Mhar_1367
Tetrahydromethanopterin S-methyltransferase, subunit A, putative	4.9	Mhar_1269
hypothetical protein	4.9	Mhar_1567
Cobalamin synthesis protein, P47K	4.9	Mhar_1116
Putative cadmium-transporting P-type ATPase	4.9	Mhar_2117
Fibrillarin-like rRNA/tRNA 2'-O-methyltransferase	4.9	Mhar_0251
ABC transporter	4.9	Mhar_1760
Protoporphyrin IX magnesium-chelatase	4.9	Mhar_1434
hypothetical protein	4.9	Mhar_2365
hypothetical protein	4.9	Mhar_1757
hypothetical protein	4.9	Mhar_2149
hypothetical protein	4.9	Mhar_2175
N-acetyltransferase, GNAT family protein	4.9	Mhar_2028
group 1 glycosyl transferase	4.9	Mhar_1094
Acetyl-CoA hydrolase/transferase	4.9	Mhar_1839
3-demethylubiquinone-9 3-methyltransferase	4.9	Mhar_0156
hypothetical protein	4.9	Mhar_2089
hypothetical protein	4.9	Mhar_1716
geranylgeranylglycerol phosphate synthase	4.9	Mhar_0199
Phosphoribosyltransferase	4.9	Mhar_1161
hypothetical protein	4.9	Mhar_2371
hypothetical protein	4.9	Mhar_1332
Protease HtpX like protein	4.9	Mhar_1811
Iron transport protein, putative	4.9	Mhar_0840
N-acetyltransferase	4.9	Mhar_0483
GHMP kinase ATP-binding protein, putative	4.9	Mhar_0609
hypothetical protein	4.9	Mhar_1346
hypothetical protein	4.9	Mhar_0970
hypothetical protein	4.9	Mhar_0072
V-type ATP synthase subunit F	4.8	Mhar_0240
replication factor C large subunit	4.8	Mhar_0865
hypothetical protein	4.8	Mhar_0212
Molybdopterin synthase subunit MoaD	4.8	Mhar_1265
hypothetical protein	4.8	Mhar_1494
XRE family transcriptional regulator	4.8	Mhar_1300
hypothetical protein	4.8	Mhar_1469
Formate dehydrogenase subunit alpha	4.8	Mhar_1282
membrane protein	4.8	Mhar_2311
hypothetical protein	4.8	Mhar_0775
Isopropylmalate/isohomocitrate dehydrogenase	4.8	Mhar_2394

Molybdenum ABC transporter, periplasmic molybdate-binding protein	4.8	Mhar_2343
parallel beta-helix repeat-containing protein	4.8	Mhar_0726
Transporter, small conductance mechanosensitive ion channel (MscS) family	4.8	Mhar_2074
DNA mismatch repair protein, MutS family	4.8	Mhar_0421
ABC transporter	4.8	Mhar_2003
hypothetical protein	4.8	Mhar_2370
AIR synthase related protein	4.8	Mhar_0326
Diaminopimelate dehydrogenase	4.8	Mhar_0438
phosphoribosyl-AMP cyclohydrolase	4.8	Mhar_0283
hypothetical protein	4.8	Mhar_1874
Chromosome segregation and condensation protein ScpB	4.8	Mhar_0508
Oxidoreductase FAD/NAD(P)-binding domain protein	4.8	Mhar_2064
5- methyltetrahydropteroyltriglutamate/homocysteine S-methyltransferase	4.8	Mhar_1073
Phosphodiesterase, MJ0936 family	4.8	Mhar_2135
Putative metalloendopeptidase	4.8	Mhar_1297
hypothetical protein	4.8	Mhar_0829
hypothetical protein	4.8	Mhar_0488
Phosphoesterase, RecJ domain protein	4.8	Mhar_1872
Molybdenum formylmethanofuran dehydrogenase, subunit D	4.8	Mhar_1284
FAD synthase	4.8	Mhar_0860
1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase	4.8	Mhar_0351
membrane protein	4.8	Mhar_1966
hypothetical protein	4.8	Mhar_0499
hypothetical protein	4.8	Mhar_1890
nicotinate-nucleotide diphosphorylase	4.7	Mhar_0005
F420-dependent methylenetetrahydromethanopterin dehydrogenase	4.7	Mhar_1470
hypothetical protein	4.7	Mhar_0682
hypothetical protein	4.7	Mhar_2377
sulfate transporter	4.7	Mhar_0731
Methylated-DNA/protein- cysteinemethyltransferase	4.7	Mhar_2134
Cobalt-precorrin-3B C(17)-methyltransferase	4.7	Mhar_0217
RDD domain-containing protein	4.7	Mhar_0591
hypothetical protein	4.7	Mhar_0143
Class II aldolase/adducin family protein	4.7	Mhar_0025
FO synthase subunit 1	4.7	Mhar_0954
putative nucleotidyltransferase	4.7	Mhar_1220
DNA-(Apurinic or apyrimidinic site) lyase, putative	4.7	Mhar_1673
hypothetical protein	4.7	Mhar_1648
Methyltransferase, putative	4.7	Mhar_1213
3-dehydroquinate dehydratase	4.7	Mhar_0788

tungsten ABC transporter substrate-binding protein	4.7	Mhar_1363
Methyltransferase, putative	4.7	Mhar_1545
hypothetical protein	4.7	Mhar_0031
DNA polymerase beta domain-containing protein region	4.7	Mhar_1022
hypothetical protein	4.7	Mhar_1354
TrkA-C domain-containing protein	4.7	Mhar_2039
hypothetical protein	4.7	Mhar_0588
UvrD/REP helicase	4.7	Mhar_0294
hypothetical protein	4.7	Mhar_0254
hypothetical protein	4.7	Mhar_0784
GTP-binding protein HflX	4.7	Mhar_0965
Nucleoside 2-deoxyribosyltransferase	4.7	Mhar_0121
hypothetical protein	4.7	Mhar_2124
hypothetical protein	4.7	Mhar_0879
hypothetical protein	4.7	Mhar_2178
hypothetical protein	4.7	Mhar_0159
WD repeat protein	4.7	Mhar_0625
nitrilase/cyanide hydratase and apolipoprotein N-acyltransferase	4.7	Mhar_0062
Putative thymidine phosphorylase	4.7	Mhar_1625
glycosyl transferase	4.7	Mhar_2010
hypothetical protein	4.7	Mhar_0190
Translin family protein	4.7	Mhar_1584
hypothetical protein	4.7	Mhar_0227
Formate dehydrogenase, beta subunit (F420)	4.7	Mhar_0324
Imidazoleglycerol-phosphate dehydratase, putative	4.7	Mhar_0581
Alkylhydroperoxidase like protein, AhpD family	4.7	Mhar_1174
Na+/solute symporter	4.7	Mhar_0068
Diphthine synthase	4.7	Mhar_0531
Histone acetyltransferase, ELP3 family protein	4.7	Mhar_0876
phosphate ABC transporter permease	4.7	Mhar_0411
Metallo-beta-lactamase domain protein	4.7	Mhar_0317
Formate dehydrogenase subunit alpha	4.7	Mhar_2066
hypothetical protein	4.7	Mhar_0170
Indolepyruvate ferredoxin oxidoreductase, alpha subunit	4.7	Mhar_1483
ArsR family transcriptional regulator	4.7	Mhar_1554
hypothetical protein	4.7	Mhar_1887
Metalloenzyme domain protein	4.7	Mhar_0018
hypothetical protein	4.7	Mhar_0852
Metallo-beta-lactamase superfamily protein	4.6	Mhar_1772
hydroxymethylglutaryl-CoA synthase	4.6	Mhar_0681
hypothetical protein	4.6	Mhar_2271
hypothetical protein	4.6	Mhar_1041
Putative ATP binding protein	4.6	Mhar_1290
Metallo-beta-lactamase domain protein	4.6	Mhar_1014
hypothetical protein	4.6	Mhar_0067

protein-L-isoaspartate O-methyltransferase	4.6	Mhar_1888
2'-5' RNA ligase	4.6	Mhar_0559
Isopentenyl phosphate kinase	4.6	Mhar_0984
flavoprotein	4.6	Mhar_0340
Na+/solute symporter	4.6	Mhar_0557
hypothetical protein	4.6	Mhar_1544
hypothetical protein	4.6	Mhar_0331
Acetyltransferase	4.6	Mhar_0246
hypothetical protein	4.6	Mhar_0700
Glutamine amidotransferase class-I	4.6	Mhar_0732
hypothetical protein	4.6	Mhar_1155
Molybdenum formylmethanofuran dehydrogenase subunit B	4.6	Mhar_1283
Cobalt ABC transporter, permease protein	4.6	Mhar_2287
hypothetical protein	4.6	Mhar_1338
ATP-dependent OLD family endonuclease	4.6	Mhar_0293
Nucleotidyltransferase, putative	4.6	Mhar_1695
Putative ATP-dependent RNA helicase	4.6	Mhar_1577
HAD-superfamily hydrolase	4.6	Mhar_1296
putative membrane-bound metal-dependent hydrolase	4.6	Mhar_0138
Transporter, small conductance mechanosensitive ion channel (MscS) family	4.6	Mhar_2384
NAD-dependent epimerase/dehydratase	4.6	Mhar_1348
Succinate-semialdehyde dehydrogenase [NADP+] (Ssdh)	4.6	Mhar_1347
AMP-forming acetyl-CoA synthetase	4.6	Mhar_1291
Formate dehydrogenase family accessory protein FdhD	4.6	Mhar_1281
Periplasmic binding protein	4.6	Mhar_1036
hypothetical protein	4.6	Mhar_0663
Periplasmic binding protein	4.6	Mhar_1646
Cytochrome c class I	4.6	Mhar_1883
glycosyl transferase	4.6	Mhar_1988
Methyltransferase, putative	4.6	Mhar_1718
Aspartate aminotransferase	4.6	Mhar_1866
4Fe-4S ferredoxin	4.6	Mhar_1352
Phage SPO1 DNA polymerase-related protein	4.6	Mhar_1325
hypothetical protein	4.6	Mhar_1023
hypothetical protein	4.6	Mhar_0353
hypothetical protein	4.6	Mhar_2180
hypothetical protein	4.5	Mhar_0266
CCA-adding enzyme	4.5	Mhar_0560
Carbohydrate kinase, YjeF related protein	4.5	Mhar_0413
Peptidase M50, putative	4.5	Mhar_2356
hypothetical protein	4.5	Mhar_0886
hypothetical protein	4.5	Mhar_1665
Aspartate/glutamate/uridylylate kinase	4.5	Mhar_1245
Methionine aminopeptidase, type II	4.5	Mhar_0197
hypothetical protein	4.5	Mhar_0569

hypothetical protein	4.5	Mhar_1058
phosphate ABC transporter permease	4.5	Mhar_0410
radical SAM protein	4.5	Mhar_0630
Peptidase, ArgE/DapE family	4.5	Mhar_1891
hypothetical protein	4.5	Mhar_1631
Lipoprotein, putative	4.5	Mhar_1540
hypothetical protein	4.5	Mhar_1744
Glycogen phosphorylase	4.5	Mhar_0930
hypothetical protein	4.5	Mhar_1088
NADH dehydrogenase/NAD(P)H nitroreductase, putative	4.5	Mhar_0875
hypothetical protein	4.5	Mhar_1957
Imidazole glycerol phosphate synthase, glutamine amidotransferase subunit	4.5	Mhar_1938
type II site-specific deoxyribonuclease	4.5	Mhar_0711
extracellular ligand-binding receptor	4.5	Mhar_0267
Exodeoxyribonuclease VII, large subunit	4.5	Mhar_0653
KAP P-loop domain-containing protein	4.5	Mhar_2102
hypothetical protein	4.5	Mhar_2269
endonuclease/exonuclease/phosphatase	4.5	Mhar_1563
Metal-dependent phosphohydrolase, HD subdomain protein	4.5	Mhar_0509
hypothetical protein	4.5	Mhar_0248
hypothetical protein	4.5	Mhar_1798
DNA polymerase D, small subunit DP1	4.5	Mhar_0253
Formate dehydrogenase subunit alpha	4.5	Mhar_1279
Iron-sulfur flavoprotein	4.5	Mhar_1507
TPR-repeat protein	4.5	Mhar_0320
Acyltransferase 3	4.5	Mhar_0712
PUA domain containing protein	4.5	Mhar_0063
Translation factor (SUA5 family)	4.5	Mhar_0830
hypothetical protein	4.5	Mhar_0903
hypothetical protein	4.5	Mhar_0313
hypothetical protein	4.5	Mhar_1192
hypothetical protein	4.5	Mhar_0835
TPR-repeat protein	4.5	Mhar_0942
hypothetical protein	4.5	Mhar_1619
ABC transporter	4.5	Mhar_0992
hypothetical protein	4.5	Mhar_1388
hypothetical protein	4.5	Mhar_2284
cupin	4.5	Mhar_1461
hypothetical protein	4.5	Mhar_1090
CDP-alcohol phosphatidyltransferase	4.4	Mhar_0485
radical SAM protein	4.4	Mhar_2348
Transposase, IS605 OrfB family	4.4	Mhar_2225
Arsenate reductase	4.4	Mhar_1546
7-cyano-7-deazaguanine synthase	4.4	Mhar_0534
type 11 methyltransferase	4.4	Mhar_0539

Anthranilate synthase component II	4.4	Mhar_1977
hypothetical protein	4.4	Mhar_1851
hypothetical protein	4.4	Mhar_0778
hypothetical protein	4.4	Mhar_0010
Anaerobic sulfatase-maturing enzyme	4.4	Mhar_1852
Archaeosine tRNA-ribosyltransferase	4.4	Mhar_0738
family 7 extracellular solute-binding protein	4.4	Mhar_0626
glycosyl transferase	4.4	Mhar_1110
hypothetical protein	4.4	Mhar_1622
hypothetical protein	4.4	Mhar_0675
2,3-bisphosphoglycerate-independent phosphoglycerate mutase	4.4	Mhar_0528
DNA polymerase beta domain-containing protein region	4.4	Mhar_2339
Nucleotide-binding protein	4.4	Mhar_2382
hypothetical protein	4.4	Mhar_1051
DEAD/DEAH box helicase	4.4	Mhar_2233
3-isopropylmalate dehydratase large subunit	4.4	Mhar_1525
hypothetical protein	4.4	Mhar_1674
hypothetical protein	4.4	Mhar_0707
Dienelactone hydrolase	4.4	Mhar_0209
Protein with two GATE domains	4.4	Mhar_1649
Glycosyl transferase family 2	4.4	Mhar_2013
hypothetical protein	4.4	Mhar_2289
Iron-sulfur cluster-binding protein	4.4	Mhar_0919
hypothetical protein	4.4	Mhar_1654
MiaB-like tRNA modifying enzyme	4.3	Mhar_0753
hypothetical protein	4.3	Mhar_2244
Activator of Hsp90 ATPase 1 family protein	4.3	Mhar_1884
N-acetyltransferase GCN5	4.3	Mhar_1149
Mitomycin resistance protein	4.3	Mhar_0845
hypothetical protein	4.3	Mhar_1496
Sulfopyruvate decarboxylase subunit alpha	4.3	Mhar_1119
hypothetical protein	4.3	Mhar_2202
PRC-barrel domain-containing protein	4.3	Mhar_1437
Ferrodoxin	4.3	Mhar_1547
CaCA family Na+/Ca+ antiporter	4.3	Mhar_0892
hypothetical protein	4.3	Mhar_1946
xylose isomerase domain-containing protein	4.3	Mhar_0430
prephenate dehydrogenase	4.3	Mhar_1623
Acetyl-CoA hydrolase/N-acetyltransferase GNAT family fusion protein	4.3	Mhar_0842
Glycogen debranching enzyme, putative sulfatase	4.3	Mhar_1983
hypothetical protein	4.3	Mhar_1849
tRNA(Ile2) 2-agmatinylcytidine synthetase	4.3	Mhar_2206
proline dehydrogenase	4.3	Mhar_0187
hypothetical protein	4.3	Mhar_0049
	4.3	Mhar_1878

hypothetical protein	4.3	Mhar_1672
DNA polymerase	4.3	Mhar_1508
hypothetical protein	4.3	Mhar_2227
GDP-mannose 4,6-dehydratase	4.3	Mhar_1096
hypothetical protein	4.3	Mhar_1362
Molybdenum cofactor biosynthesis protein C	4.3	Mhar_0414
hypothetical protein	4.3	Mhar_0900
hypothetical protein	4.3	Mhar_0235
type 11 methyltransferase	4.3	Mhar_1596
L-2,4-diaminobutyric acid acetyltransferase	4.3	Mhar_1458
Efflux pump antibiotic resistance protein	4.3	Mhar_0074
hypothetical protein	4.3	Mhar_2364
orotate phosphoribosyltransferase	4.3	Mhar_0123
hypothetical protein	4.3	Mhar_0247
hypothetical protein	4.2	Mhar_0348
Methionine adenosyltransferase	4.2	Mhar_2077
cation-transporting ATPase	4.2	Mhar_2376
hypothetical protein	4.2	Mhar_0095
hypothetical protein	4.2	Mhar_0201
DNA ligase, putative	4.2	Mhar_0522
McrBC 5-methylcytosine restriction system component-like protein	4.2	Mhar_0971
Tryptophan synthase, alpha subunit	4.2	Mhar_1975
hypothetical protein	4.2	Mhar_2191
AIR synthase related protein domain protein	4.2	Mhar_1764
Molybdenum formylmethanofuran dehydrogenase subunit A	4.2	Mhar_1286
NADH dehydrogenase/NAD(P)H nitroreductase, putative	4.2	Mhar_0781
cobyric acid synthase	4.2	Mhar_0999
hypothetical protein	4.2	Mhar_1604
Putative small multi-drug export protein	4.2	Mhar_1425
ABC transporter permease	4.2	Mhar_1302
hypothetical protein	4.2	Mhar_2226
Diaminohydroxyphosphoribosylaminopyrimidine reductase	4.2	Mhar_1003
Alkaline phosphatase family protein	4.2	Mhar_0144
CRISPR-associated protein, Csx3 family	4.2	Mhar_1706
hypothetical protein	4.2	Mhar_0570
putative molybdenum cofactor biosynthesis protein A	4.2	Mhar_2189
Cell surface protein	4.2	Mhar_1840
Extracellular solute-binding protein family 3	4.2	Mhar_0773
adenine deaminase	4.1	Mhar_0629
peptidoglycan-binding lysin domain-containing protein	4.1	Mhar_0836
Peptidase family C25	4.1	Mhar_1113
hypothetical protein	4.1	Mhar_0772
hypothetical protein	4.1	Mhar_0577
hypothetical protein	4.1	Mhar_1925
GTP-binding protein	4.1	Mhar_2073

Cell division control protein 6	4.1	Mhar_0401
hypothetical protein	4.1	Mhar_1084
Cobyricic acid a,c-diamide synthase	4.1	Mhar_1505
Oligopeptide ABC transporter, permease protein	4.1	Mhar_1040
hypothetical protein	4.1	Mhar_0929
hypothetical protein	4.1	Mhar_0847
hypothetical protein	4.1	Mhar_1142
hypothetical protein	4.1	Mhar_1684
amidohydrolase	4.1	Mhar_0088
hypothetical protein	4.1	Mhar_1879
type 11 methyltransferase	4.1	Mhar_1108
Phenazine biosynthesis protein PhzF family	4.1	Mhar_0097
Cysteate synthase	4.1	Mhar_1114
hypothetical protein	4.1	Mhar_2213
Phosphate ABC transporter, inner membrane subunit	4.1	Mhar_0412
hypothetical protein	4.1	Mhar_2274
hypothetical protein	4.1	Mhar_2366
hypothetical protein	4.1	Mhar_0680
ABC transporter ATP-binding protein	4.1	Mhar_0991
hypothetical protein	4.1	Mhar_0866
hypothetical protein	4.1	Mhar_1639
Periplasmic binding protein	4.1	Mhar_1212
Phosphoesterase, RecJ domain protein	4.1	Mhar_1323
transcriptional regulator	4.1	Mhar_0176
Putative cobalt-precorrin-6A synthase (Deacetylating)	4.1	Mhar_0219
hypothetical protein	4.0	Mhar_0009
Anthraniilate synthase, component I	4.0	Mhar_1979
hypothetical protein	4.0	Mhar_1223
Oligopeptide/dipeptide ABC transporter, ATPase subunit	4.0	Mhar_1226
Histone deacetylase family protein	4.0	Mhar_1722
hypothetical protein	4.0	Mhar_0693
Sodium/hydrogen exchanger	4.0	Mhar_1273
hypothetical protein	4.0	Mhar_0089
hypothetical protein	4.0	Mhar_1079
sulfate adenylyltransferase	4.0	Mhar_1989
cytosine deaminase	4.0	Mhar_1339
ATPase	4.0	Mhar_0972
SAM-dependent methyltransferase, UbiE/COQ5 family	4.0	Mhar_1378
hypothetical protein	4.0	Mhar_1537
radical SAM protein	4.0	Mhar_0848
hypothetical protein	4.0	Mhar_2386
hypothetical protein	4.0	Mhar_1083
Molybdenum-pterin-binding-protein	4.0	Mhar_0694
hypothetical protein	4.0	Mhar_0990
cytochrome c biogenesis protein transmembrane region	4.0	Mhar_1541
Chloride transporter, chloride channel (ClC) family protein	4.0	Mhar_0916

hypothetical protein	4.0	Mhar_1826
hypothetical protein	4.0	Mhar_0969
hypothetical protein	4.0	Mhar_1832
Response regulator domain with PAS sensor, putative	4.0	Mhar_0169
hypothetical protein	4.0	Mhar_1333
Exodeoxyribonuclease VII, small subunit	4.0	Mhar_0654
hypothetical protein	3.9	Mhar_1551
Tungsten formylmethanofuran dehydrogenase, subunit C-like protein	3.9	Mhar_0014
glycosyl transferase	3.9	Mhar_1106
hypothetical protein	3.9	Mhar_0672
hypothetical protein	3.9	Mhar_1948
NOL1/NOP2/sun family putative RNA methylase	3.9	Mhar_0761
hypothetical protein	3.9	Mhar_2060
Queuosine biosynthesis protein QueD	3.9	Mhar_0533
Peptidyl-prolyl cis-trans isomerase C	3.9	Mhar_2041
hypothetical protein	3.9	Mhar_1379
hypothetical protein	3.9	Mhar_2056
Serine/threonine protein kinase RIO2 (RIO kinase 2)	3.9	Mhar_1329
DNA mismatch repair protein MutL	3.9	Mhar_0323
Beta-lactamase domain protein	3.9	Mhar_1929
Glucosamine-1-phosphate N-acetyltransferase	3.9	Mhar_2268
hypothetical protein	3.9	Mhar_1064
Alpha glucan phosphorylase	3.9	Mhar_1198
hypothetical protein	3.9	Mhar_0527
UbiE/COQ5 methyltransferase	3.9	Mhar_2368
geranylgeranyl reductase	3.9	Mhar_1156
hypothetical protein	3.9	Mhar_1530
hypothetical protein	3.9	Mhar_2373
Beta-ketoacyl-acyl-carrier-protein synthase I	3.9	Mhar_2367
UvrABC system protein C	3.9	Mhar_1474
hypothetical protein	3.9	Mhar_1562
Rhodanese-like domain-containing protein	3.9	Mhar_1229
alanyl-tRNA synthetase	3.9	Mhar_0078
hypothetical protein	3.9	Mhar_0166
hypothetical protein	3.9	Mhar_1583
Phosphoglyceromutase	3.9	Mhar_0064
Integral membrane protein	3.8	Mhar_1797
hypothetical protein	3.8	Mhar_1812
hypothetical protein	3.8	Mhar_0659
hypothetical protein	3.8	Mhar_0160
Formate/nitrite family transporter	3.8	Mhar_0691
RNA methylase family protein	3.8	Mhar_0314
hypothetical protein	3.8	Mhar_1969
PHP domain-containing protein	3.8	Mhar_1524
hypothetical protein	3.8	Mhar_2243

hypothetical protein	3.8	Mhar_2312
hypothetical protein	3.8	Mhar_0330
saccharopine dehydrogenase	3.8	Mhar_0275
hypothetical protein	3.8	Mhar_1366
Transcriptional regulatory protein, AsnC family	3.8	Mhar_0408
rhodanese-like protein	3.8	Mhar_2186
6-phosphofructokinase, putative	3.8	Mhar_2201
hypothetical protein	3.8	Mhar_0635
magnesium chelatase	3.8	Mhar_1433
putative membrane protein, ion channel family	3.8	Mhar_0924
hypothetical protein	3.8	Mhar_1667
putative H4MPT-linked C1 transfer pathway protein	3.8	Mhar_2357
Magnesium and cobalt transport protein CorA	3.8	Mhar_0890
hypothetical protein	3.8	Mhar_0889
Cell surface protein	3.8	Mhar_0822
Oligosaccharyl transferase, STT3 subunit	3.7	Mhar_1439
Na ⁺ /solute symporter	3.7	Mhar_2190
hypothetical protein	3.7	Mhar_2055
type 11 methyltransferase	3.7	Mhar_2122
Precorrin-4 C11-methyltransferase	3.7	Mhar_0215
Drug resistance transporter, Bcr/CflA subfamily	3.7	Mhar_1082
hypothetical protein	3.7	Mhar_1456
hypothetical protein	3.7	Mhar_2054
cupin	3.7	Mhar_0959
Type I restriction-modification system DNA methylase	3.7	Mhar_1080
V-type ATP synthase subunit alpha	3.7	Mhar_0241
Periplasmic binding protein	3.7	Mhar_0802
hypothetical protein	3.7	Mhar_1676
hypothetical protein	3.7	Mhar_2059
hypothetical protein	3.7	Mhar_0783
Response regulator receiver protein	3.7	Mhar_1520
hypothetical protein	3.7	Mhar_1423
hypothetical protein	3.7	Mhar_1519
Cytochrome c biogenesis protein	3.7	Mhar_0020
hypothetical protein	3.7	Mhar_0342
DNA-(Apurinic or apyrimidinic site) lyase	3.7	Mhar_0846
hypothetical protein	3.7	Mhar_1355
Cation diffusion facilitator family transporter	3.7	Mhar_0888
Fructose bisphosphate aldolase	3.7	Mhar_1454
hypothetical protein	3.7	Mhar_1227
hypothetical protein	3.7	Mhar_0137
CRISPR-associated protein, Cas2 family	3.7	Mhar_1704
hypothetical protein	3.7	Mhar_2369
transcriptional regulator	3.7	Mhar_1171
hypothetical protein	3.7	Mhar_0885
hypothetical protein	3.7	Mhar_2275

Dipeptidyl-peptidase 1	3.7	Mhar_1123
hypothetical protein	3.7	Mhar_1341
Glycoside hydrolase 15-related protein	3.7	Mhar_0510
saccharopine dehydrogenase	3.6	Mhar_1340
putative nucleic acid-binding protein, contains PIN domain	3.6	Mhar_0141
N-6 DNA methylase	3.6	Mhar_2143
2-dehydropantoate 2-reductase	3.6	Mhar_1595
hypothetical protein	3.6	Mhar_0627
hypothetical protein	3.6	Mhar_1396
Putative methanogenesis marker protein 8	3.6	Mhar_0079
Beta-lactamase domain protein	3.6	Mhar_1386
Fumarase, beta subunit	3.6	Mhar_1501
hypothetical protein	3.6	Mhar_2239
hypothetical protein	3.6	Mhar_1303
L-threonine ammonia-lyase	3.6	Mhar_1317
hypothetical protein	3.6	Mhar_1319
Methyltransferase	3.6	Mhar_0127
ABC transporter permease	3.6	Mhar_1318
DNA ligase D	3.6	Mhar_1719
hypothetical protein	3.6	Mhar_2181
Pentapeptide repeat protein	3.6	Mhar_1529
Cobaltochelatase CobN subunit	3.6	Mhar_1358
hypothetical protein	3.6	Mhar_0686
RNA methyltransferase, TrmH family, group 1	3.6	Mhar_0589
hypothetical protein	3.6	Mhar_0933
Ser/Thr protein phosphatase family protein	3.6	Mhar_0122
Transporter, YbiR family	3.6	Mhar_1258
hypothetical protein	3.6	Mhar_1278
Glutamine amidotransferase class-I	3.6	Mhar_1289
hypothetical protein	3.6	Mhar_1542
hypothetical protein	3.6	Mhar_0066
Tetrahydromethanopterin:alpha-L-glutamate ligase	3.6	Mhar_2185
hypothetical protein	3.6	Mhar_2208
Deoxyribodipyrimidine photolyase-related protein	3.6	Mhar_1808
hypothetical protein	3.6	Mhar_1351
Peptidase U32	3.6	Mhar_1600
hypothetical protein	3.6	Mhar_2240
Ectoine synthase	3.6	Mhar_1460
4Fe-4S ferredoxin	3.6	Mhar_0448
hypothetical protein	3.6	Mhar_0596
Nucleolar GTP-binding-1 domain protein	3.6	Mhar_2246
hypothetical protein	3.6	Mhar_1397
hypothetical protein	3.6	Mhar_2001
hypothetical protein	3.6	Mhar_2388
cell division protein FtsZ	3.6	Mhar_2379
ABC transporter ATP-binding protein	3.6	Mhar_1216

N-acetyltransferase GCN5	3.6	Mhar_1985
hypothetical protein	3.6	Mhar_0925
hypothetical protein	3.6	Mhar_0284
Cobaltochelatase CobN subunit	3.5	Mhar_1357
Phosphoesterase	3.5	Mhar_0578
Uridylate kinase, putative	3.5	Mhar_0280
hypothetical protein	3.5	Mhar_0872
Arsenical-resistance protein	3.5	Mhar_1555
hypothetical protein	3.5	Mhar_0771
hypothetical protein	3.5	Mhar_1168
hypothetical protein	3.5	Mhar_2153
hypothetical protein	3.5	Mhar_1549
Indolepyruvate ferredoxin oxidoreductase	3.5	Mhar_1928
Ion transport protein	3.5	Mhar_1010
Imidazoleglycerol phosphate synthase, cyclase subunit	3.5	Mhar_2295
ABC transporter	3.5	Mhar_0893
oligopeptide ABC transporter ATP-binding protein	3.5	Mhar_1038
5'-Nucleotidase-like protein	3.5	Mhar_1257
hypothetical protein	3.5	Mhar_1210
hypothetical protein	3.5	Mhar_1705
Iron(III) ABC transporter, permease protein	3.5	Mhar_1033
hypothetical protein	3.5	Mhar_2182
hypothetical protein	3.5	Mhar_0258
hypothetical protein	3.5	Mhar_1228
hypothetical protein	3.5	Mhar_0841
DNA polymerase, beta domain-containing protein region	3.5	Mhar_1698
hypothetical protein	3.5	Mhar_1066
Glutamate synthase, alpha subunit domain protein	3.5	Mhar_1942
putative periplasmic or secreted lipoprotein	3.5	Mhar_1067
Cation transport protein	3.5	Mhar_1011
hypothetical protein	3.5	Mhar_1580
von Willebrand factor, type A	3.5	Mhar_1655
Phosphorylase	3.5	Mhar_2200
hypothetical protein	3.5	Mhar_2212
glyoxalase	3.5	Mhar_1336
hypothetical protein	3.5	Mhar_1350
hypothetical protein	3.5	Mhar_0484
hypothetical protein	3.5	Mhar_1579
ABC transporter ATP-binding protein	3.4	Mhar_1217
Alpha/beta hydrolase fold protein	3.4	Mhar_0725
Oligosaccharyl transferase, STT3 subunit	3.4	Mhar_1730
TPR-repeat protein	3.4	Mhar_0943
membrane protein	3.4	Mhar_0278
hypothetical protein	3.4	Mhar_0713
hypothetical protein	3.4	Mhar_1694
endoribonuclease L-PSP	3.4	Mhar_0157

xanthine/uracil/vitamin C permease	3.4	Mhar_0628
hypothetical protein	3.4	Mhar_1491
hypothetical protein	3.4	Mhar_1605
Tetratricopeptide repeat family	3.4	Mhar_1720
cytochrome c biogenesis protein transmembrane region	3.4	Mhar_1552
hypothetical protein	3.4	Mhar_1027
YeeE/YedE family lipoprotein	3.4	Mhar_1422
Beta-lactamase domain protein	3.4	Mhar_2300
hypothetical protein	3.4	Mhar_1145
hypothetical protein	3.4	Mhar_1550
Methyltransferase, putative	3.4	Mhar_0618
hypothetical protein	3.4	Mhar_1125
type 11 methyltransferase	3.4	Mhar_1030
hypothetical protein	3.4	Mhar_1068
Fe-S cluster domain-containing protein	3.4	Mhar_1117
Cation diffusion facilitator family transporter	3.4	Mhar_1389
3-oxoacyl-ACP reductase	3.3	Mhar_0920
hypothetical protein	3.3	Mhar_1807
Endonuclease V	3.3	Mhar_2133
tRNA (cytidine(56)-2'-O)-methyltransferase	3.3	Mhar_0634
putative nucleic acid-binding protein	3.3	Mhar_2337
Putative transcriptional regulator	3.3	Mhar_0899
citrate transporter	3.3	Mhar_1424
gluconate transporter	3.3	Mhar_0106
hypothetical protein	3.3	Mhar_0944
hypothetical protein	3.3	Mhar_0259
hypothetical protein	3.3	Mhar_1824
Cobalamin (Vitamin B12) biosynthesis CbiG protein	3.3	Mhar_0216
ATP-dependent RNA helicase	3.3	Mhar_0352
hypothetical protein	3.3	Mhar_1081
Archaeometzincin	3.3	Mhar_0671
hypothetical protein	3.3	Mhar_0155
hypothetical protein	3.3	Mhar_0037
hypothetical protein	3.3	Mhar_2196
hypothetical protein	3.3	Mhar_0947
Glutamine cyclotransferase	3.3	Mhar_1934
hypothetical protein	3.3	Mhar_0310
hypothetical protein	3.3	Mhar_0285
hypothetical protein	3.3	Mhar_0140
CRISPR-associated exonuclease, Cas4 family / CRISPR-associated protein, Cas1 family	3.3	Mhar_1703
TrkA-C domain-containing protein	3.3	Mhar_2040
Formylmethanofuran dehydrogenase, subunit C	3.3	Mhar_1831
hypothetical protein	3.3	Mhar_0883
hypothetical protein	3.3	Mhar_2292
hypothetical protein	3.3	Mhar_0717

Diaminobutyrate--2-oxoglutarate aminotransferase	3.3	Mhar_1459
YeeE/YedE family protein	3.3	Mhar_1421
geranylgeranyl reductase	3.2	Mhar_0556
hypothetical protein	3.2	Mhar_0975
Transporter, monovalent cation:proton antiporter-2 (CPA2) family	3.2	Mhar_0132
hypothetical protein	3.2	Mhar_0038
Putative snoRNA binding domain protein	3.2	Mhar_0082
acetyl-CoA synthetase	3.2	Mhar_0752
putative membrane protein, containing TPR repeats	3.2	Mhar_1920
nucleotidyltransferase	3.2	Mhar_2340
hypothetical protein	3.2	Mhar_0904
Phosphorylase	3.2	Mhar_1219
hypothetical protein	3.2	Mhar_1502
hypothetical protein	3.2	Mhar_1248
Permease	3.2	Mhar_1539
hypothetical protein	3.2	Mhar_0643
hypothetical protein	3.2	Mhar_1841
hypothetical protein	3.2	Mhar_0182
Efflux ABC transporter, permease protein	3.2	Mhar_0882
Ssr1766 protein	3.2	Mhar_1065
hypothetical protein	3.2	Mhar_2293
Cobalt ABC transporter, ATP-binding protein	3.1	Mhar_2286
thymidylate kinase	3.1	Mhar_0189
hypothetical protein	3.1	Mhar_1447
hypothetical protein	3.1	Mhar_1026
hypothetical protein	3.1	Mhar_1334
hypothetical protein	3.1	Mhar_1749
hypothetical protein	3.1	Mhar_1475
hypothetical protein	3.1	Mhar_2302
hypothetical protein	3.1	Mhar_1638
4Fe-4S binding protein	3.1	Mhar_1127
hypothetical protein	3.1	Mhar_2081
CoA-binding protein	3.1	Mhar_1729
hypothetical protein	3.1	Mhar_2294
Ribonucleoside-diphosphate reductase, adenosylcobalamin-dependent	3.1	Mhar_0296
Cobalt ABC transporter, inner membrane subunit CbiQ	3.1	Mhar_0648
hypothetical protein	3.1	Mhar_1214
Iron-sulfur cluster-binding protein	3.1	Mhar_0958
hypothetical protein	3.1	Mhar_0702
anthranilate phosphoribosyltransferase	3.1	Mhar_1981
type 12 methyltransferase	3.1	Mhar_1827
Proton/sodium-glutamate symport protein	3.1	Mhar_2199
hypothetical protein	3.1	Mhar_0706
Rhodanese domain-containing protein	3.1	Mhar_1556

type 12 methyltransferase	3.1	Mhar_1609
hypothetical protein	3.1	Mhar_0249
hypothetical protein	3.1	Mhar_0096
hypothetical protein	3.1	Mhar_1197
sugar fermentation stimulation protein	3.1	Mhar_0652
hypothetical protein	3.1	Mhar_1448
Methyltetrahydromethanopterin S-methyltransferase, subunit H, putative	3.1	Mhar_1473
ATPase	3.1	Mhar_0094
Cation transporter	3.1	Mhar_1931
hypothetical protein	3.0	Mhar_2211
4Fe-4S ferredoxin	3.0	Mhar_1940
hypothetical protein	3.0	Mhar_0714
Nodulation efficiency protein NfeD	3.0	Mhar_1919
molybdopterin-guanine dinucleotide biosynthesis protein MobB	3.0	Mhar_1892
hypothetical protein	3.0	Mhar_1280
hypothetical protein	3.0	Mhar_0656
Diphthamide biosynthesis protein, putative	3.0	Mhar_0746
Methyltransferase, putative	3.0	Mhar_1432
Ferrous iron transport protein B	3.0	Mhar_0262
hypothetical protein	3.0	Mhar_0678
Oligopeptide ABC transporter, permease protein	3.0	Mhar_1039
hypothetical protein	3.0	Mhar_1696
hypothetical protein	3.0	Mhar_0145
hypothetical protein	2.9	Mhar_1059
Pyrrolo-quinoline quinone	2.9	Mhar_1360
Sulfopyruvate decarboxylase subunit beta	2.9	Mhar_1121
Glutamine amidotransferase, class-II	2.9	Mhar_1944
4Fe-4S binding protein	2.9	Mhar_1939
Nitrogen regulatory protein P-II	2.9	Mhar_1949
hypothetical protein	2.9	Mhar_1533
hypothetical protein	2.9	Mhar_0065
Transposase, IS4 family protein/SWIM domain fusion	2.9	Mhar_2146
Met10+ like methyltransferase	2.9	Mhar_0931
V8-like Glu-specific endopeptidase	2.9	Mhar_0640
Tungstate/molybdate transport system ATP-binding protein	2.9	Mhar_2341
hypothetical protein	2.9	Mhar_0616
nucleotidyltransferase	2.9	Mhar_2336
Pyrrolo-quinoline quinone	2.9	Mhar_1359
hypothetical protein	2.9	Mhar_1377
Cobalt chelatase	2.9	Mhar_0679
hypothetical protein	2.9	Mhar_0213
Drug resistance transporter, EmrB/QacA subfamily	2.9	Mhar_1392
Copper-exporting ATPase	2.9	Mhar_0101
ABC-3 transport family protein	2.8	Mhar_1044
hypothetical protein	2.8	Mhar_1335

hypothetical protein	2.8	Mhar_0526
Purine nucleoside phosphorylase	2.8	Mhar_1588
Lipolytic enzyme, G-D-S-L family	2.8	Mhar_0655
hypothetical protein	2.8	Mhar_0600
hypothetical protein	2.8	Mhar_0264
hypothetical protein	2.8	Mhar_1881
N-acetyltransferase GCN5	2.8	Mhar_0479
Aspartate aminotransferase	2.8	Mhar_2101
hypothetical protein	2.8	Mhar_0202
hypothetical protein	2.8	Mhar_0692
binding-protein-dependent transport system inner membrane protein	2.8	Mhar_1225
TPR-repeat protein	2.8	Mhar_0940
exodeoxyribonuclease V	2.8	Mhar_0703
hypothetical protein	2.8	Mhar_0518
tRNA pseudouridine synthase D	2.8	Mhar_1926
hypothetical protein	2.8	Mhar_2303
hypothetical protein	2.8	Mhar_0669
hypothetical protein	2.8	Mhar_0855
hypothetical protein	2.8	Mhar_1945
hypothetical protein	2.8	Mhar_0093
hypothetical protein	2.7	Mhar_0945
hypothetical protein	2.7	Mhar_2375
NifC-like ABC-type porter	2.7	Mhar_2342
FeoA family protein	2.7	Mhar_0261
hypothetical protein	2.7	Mhar_1681
hypothetical protein	2.7	Mhar_0336
V-type ATP synthase subunit C	2.7	Mhar_0239
dipeptide/oligopeptide/nickel ABC transporter permease	2.7	Mhar_1224
hypothetical protein	2.7	Mhar_0639
hypothetical protein	2.7	Mhar_0998
Putative CoB-CoM heterodisulfide reductase, subunit B	2.7	Mhar_0601
oligopeptide ABC transporter substrate-binding protein OppA	2.7	Mhar_1642
hypothetical protein	2.7	Mhar_0705
Alpha-amylase	2.7	Mhar_1984
hypothetical protein	2.7	Mhar_2068
ABC transporter	2.7	Mhar_1617
CDP-diacylglycerol/serine O-phosphatidyltransferase	2.7	Mhar_2192
hypothetical protein	2.7	Mhar_1061
hypothetical protein	2.7	Mhar_1361
hypothetical protein	2.7	Mhar_1450
PBS lyase HEAT domain-containing protein repeat-containing protein	2.7	Mhar_1765
hypothetical protein	2.7	Mhar_0268
Cobalt ABC transporter, ATP-binding protein	2.7	Mhar_0647
hypothetical protein	2.6	Mhar_0597

hypothetical protein	2.6	Mhar_1485
Imidazoleglycerol phosphate synthase, cyclase subunit	2.6	Mhar_1937
radical SAM protein	2.6	Mhar_0142
DNA polymerase beta domain-containing protein region	2.6	Mhar_0613
hypothetical protein	2.6	Mhar_0730
hypothetical protein	2.6	Mhar_1748
hypothetical protein	2.6	Mhar_2224
2-methylcitrate synthase/citrate synthase II	2.6	Mhar_1843
hypothetical protein	2.6	Mhar_0642
Periplasmic binding protein	2.6	Mhar_1612
Cell surface protein	2.6	Mhar_1122
Iron-sulfur binding reductase	2.5	Mhar_0709
hypothetical protein	2.5	Mhar_1838
erythromycin esterase	2.5	Mhar_1751
hypothetical protein	2.5	Mhar_2360
Ferrous iron transport protein B	2.5	Mhar_0263
riboflavin synthase subunit alpha	2.5	Mhar_0295
ABC transporter, iron chelate uptake transporter family, permease protein	2.5	Mhar_1215
Glutamate synthase (NADPH) GltB2 subunit	2.5	Mhar_0684
Molybdenum formylmethanofuran dehydrogenase, subunit F	2.5	Mhar_1287
TPR-repeat protein	2.5	Mhar_0941
ABC transporter	2.5	Mhar_1218
Putative methanogenesis marker 16 metalloprotein	2.5	Mhar_1126
Aminoacyl-histidine dipeptidase	2.5	Mhar_0594
hypothetical protein	2.5	Mhar_1029
ABC transporter-like protein	2.5	Mhar_1365
hypothetical protein	2.5	Mhar_1599
PP-loop domain-containing protein	2.5	Mhar_0490
hypothetical protein	2.4	Mhar_2151
Cobaltochelatase CobN subunit	2.4	Mhar_1611
Carbamate kinase	2.4	Mhar_1668
hypothetical protein	2.4	Mhar_2381
hypothetical protein	2.4	Mhar_2058
hypothetical protein	2.4	Mhar_0051
UbiA prenyltransferase	2.4	Mhar_0424
membrane protein	2.4	Mhar_1356
hypothetical protein	2.4	Mhar_0203
Filament induced by cAMP protein	2.4	Mhar_0599
Cation efflux family protein	2.4	Mhar_0673
hypothetical protein	2.3	Mhar_1855
Sodium:neurotransmitter symporter family protein, putative	2.3	Mhar_1669
OsmC family protein	2.3	Mhar_0674
radical SAM protein	2.3	Mhar_1431
hypothetical protein	2.3	Mhar_2139
Formate dehydrogenase subunit alpha	2.3	Mhar_1941

hypothetical protein	2.3	Mhar_0966
V-type ATP synthase subunit G	2.3	Mhar_0236
hypothetical protein	2.3	Mhar_0100
Large-conductance mechanosensitive channel	2.3	Mhar_0623
Guanine deaminase	2.3	Mhar_2120
hypothetical protein	2.3	Mhar_0269
Thiamine-phosphate kinase	2.3	Mhar_2188
hypothetical protein	2.3	Mhar_1647
DNA polymerase beta domain-containing protein region	2.2	Mhar_1686
Tungsten transporter, permease protein	2.2	Mhar_1364
Precorrin-6y C5,15-methyltransferase (Decarboxylating) domain protein	2.2	Mhar_0220
Phosphatidylserine decarboxylase-like protein	2.2	Mhar_2193
hypothetical protein	2.2	Mhar_0660
sugar fermentation stimulation protein	2.2	Mhar_0651
N-(5'-phosphoribosyl)anthranilate isomerase	2.2	Mhar_1980
L-2,4-diaminobutyric acid acetyltransferase	2.2	Mhar_1457
hypothetical protein	2.2	Mhar_0797
N-acetyltransferase GCN5	2.1	Mhar_0098
hypothetical protein	2.1	Mhar_0782
Glutamate synthase	2.1	Mhar_1943
hypothetical protein	2.1	Mhar_1509
Metallo-beta-lactamase domain protein	2.1	Mhar_1255
L-sorbose dehydrogenase	2.1	Mhar_0909
DNA polymerase B	2.1	Mhar_1581
Multiple antibiotic resistance (MarC)-related protein	2.1	Mhar_0708
Nitrogen regulatory protein P-II	2.1	Mhar_0727
hypothetical protein	2.1	Mhar_0614
hypothetical protein	2.1	Mhar_0921
Alpha-amylase, putative	2.0	Mhar_1650
hypothetical protein	2.0	Mhar_1632
hypothetical protein	2.0	Mhar_1714
ATP-dependent nuclease subunit B-like protein	2.0	Mhar_0704
oligopeptide ABC transporter ATP-binding protein	2.0	Mhar_1037
hypothetical protein	1.9	Mhar_1510
Transcriptional regulator, CopG family	1.9	Mhar_0729
hypothetical protein	1.9	Mhar_0871
hypothetical protein	1.9	Mhar_1685
hypothetical protein	1.9	Mhar_0833
hypothetical protein	1.9	Mhar_1169
hypothetical protein	1.9	Mhar_0092
hypothetical protein	1.8	Mhar_1511
Restriction endonuclease	1.8	Mhar_1836
hypothetical protein	1.8	Mhar_1109
V-type ATP synthase subunit I	1.8	Mhar_0237
hypothetical protein	1.8	Mhar_1179

		<u>log2</u> <u>RPKM</u>		
<u>/product</u>	<u>/gene</u>	<u>Average-</u>	<u>/locus_tag</u>	<u>Median</u>
Zn-dependent hydrolase of the beta-lactamase fold family		1.8	Mhar_0128	
hypothetical protein		1.8	Mhar_1792	
hypothetical protein		1.7	Mhar_1430	
Molybdenum cofactor synthesis domain protein		1.7	Mhar_0756	
hypothetical protein		1.7	Mhar_0914	
ABC transporter ATP-binding protein		1.7	Mhar_1564	
FAD linked oxidase		1.7	Mhar_0710	
hypothetical protein		1.7	Mhar_1321	
von Willebrand factor, type A		1.7	Mhar_1657	
hypothetical protein		1.7	Mhar_1784	
hypothetical protein		1.7	Mhar_1658	
type 11 methyltransferase		1.6	Mhar_1128	
Type I restriction-modification system, specificity subunit S		1.6	Mhar_2210	
hypothetical protein		1.6	Mhar_1048	
cobalamin synthase		1.6	Mhar_2319	
Sodium bile acid symporter family		1.4	Mhar_2106	
hypothetical protein		1.4	Mhar_2241	
ABC transporter ATP-binding protein		1.3	Mhar_1613	
hypothetical protein		1.3	Mhar_1013	
Dihydropteroate synthase-related protein		1.3	Mhar_1958	
transposase		1.3	Mhar_1047	
Site-specific integrase/recombinase		1.3	Mhar_1195	
hypothetical protein		1.2	Mhar_0934	
hypothetical protein		1.2	Mhar_0598	
Acetyl-CoA hydrolase/N-acetyltransferase GNAT family fusion				
protein		1.2	Mhar_0850	
hypothetical protein		1.1	Mhar_1391	
Chloride transporter, chloride channel (CIC) family protein		1.1	Mhar_0915	
Ammonium transporter		1.1	Mhar_1950	
Cell division protein pelota		1.0	Mhar_0491	
Putative methylase		0.9	Mhar_2242	
DNA polymerase I		0.9	Mhar_1702	
ABC transporter ATP-binding protein		0.8	Mhar_1608	
Ammonium transporter		0.8	Mhar_0728	
hypothetical protein		0.8	Mhar_0260	
hypothetical protein		0.5	Mhar_0139	
hypothetical protein		0.3	Mhar_1854	
subtilase family peptidase		0.3	Mhar_0849	
hypothetical protein		0.2	Mhar_0722	

Table S3 b. List of genes belonging to *Geobacter metallireducens* and their expression levels.

Transcript reads that have \geq median log2 RPKM values (6.3) were taken as the threshold for the significant expression level.

<u>/product</u>	<u>/gene</u>	<u>log2</u> <u>RPKM</u>	<u>Average-</u>	<u>/locus_tag</u>	<u>Median</u>

GMMH			
hypothetical protein		15.4	Gmet_0129
hypothetical protein		13.5	Gmet_3255
hypothetical protein		13.0	Gmet_1131
lipoprotein, putative		12.4	Gmet_0166
ribosomal protein S12	rpsL	12.4	Gmet_0621
hypothetical protein		12.3	Gmet_3440
ribosomal protein S17	rpsQ	12.3	Gmet_0635
hypothetical protein		12.3	Gmet_1565
ribosomal protein S19	rpsS	12.2	Gmet_0630
chaperone protein DnaK	dnaK	12.2	Gmet_3532
uncharacterized protein YqeY	yqeY	12.1	Gmet_0392
ATP-independent chaperone, alpha-crystallin/Hsp20 family	hspA-1	12.0	Gmet_2986
ribosomal protein S7	rpsG	11.9	Gmet_0622
ribosomal protein S10	rpsJ	11.9	Gmet_0625
ribosomal protein L23	rplW	11.9	Gmet_0628
ribosomal protein L30	rpmD	11.8	Gmet_0644
ribosomal protein L16	rplP	11.8	Gmet_0633
rare lipoprotein A-like double-psi beta-barrel domain protein		11.8	Gmet_3379
glutamate dehydrogenase, NADP-dependent efflux pump, RND family, inner membrane protein	gdhA	11.8	Gmet_1186
cold shock DNA/RNA-binding protein	acrB	11.8	Gmet_0810
cytochrome c		11.7	Gmet_0155
ribosomal protein S8	rpsH	11.7	Gmet_0640
ATP-dependent chaperone ClpB	clpB	11.7	Gmet_2851
hypothetical protein		11.7	Gmet_2461
ribosomal protein S21	rpsU	11.7	Gmet_0391
citrate synthase	gltA	11.6	Gmet_2689
ribosomal protein L3	rplC	11.6	Gmet_0626
hypothetical protein		11.6	Gmet_3606
bacterioferritin, cytochrome b1		11.6	Gmet_1908
ribosomal protein L21	rplU	11.6	Gmet_3195
SsrA-binding protein	smpB	11.6	Gmet_1646
NADH dehydrogenase I, E subunit	nuoE-1	11.6	Gmet_3351
hypothetical protein		11.5	Gmet_3501
cytochrome c	ppcA	11.5	Gmet_2902
ribosomal protein S13	rpsM	11.5	Gmet_0650
hypothetical protein		11.5	Gmet_2780
ribosomal protein L10	rplJ	11.4	Gmet_0617
ribosomal protein S6	rpsF	11.4	Gmet_2844
peptidoglycan-binding outer membrane protein, OMP_b-brl and OmpA domain-containing		11.4	Gmet_0342

ribosomal protein L15	rplO	11.4	Gmet_0645
ferredoxin	frx-6	11.4	Gmet_3170
ribosomal protein L24	rplX	11.4	Gmet_0637
hypothetical protein		11.4	Gmet_2462
preprotein translocase, SecG subunit	secG	11.3	Gmet_1949
efflux pump, RND family, membrane fusion			
lipoprotein	acrA	11.3	Gmet_0809
NADH dehydrogenase I, I subunit	nuoL-1	11.3	Gmet_3347
ferritin-like domain protein		11.2	Gmet_3238
cold shock DNA/RNA-binding protein		11.2	Gmet_0340
ribosomal protein L5	rplE	11.1	Gmet_0638
ribosomal protein L22	rplV	11.1	Gmet_0631
cytochrome c	omcZ	11.1	Gmet_0930
2-oxoglutarate:ferredoxin oxidoreductase, ferredoxin subunit	korD	11.1	Gmet_1361
hypothetical protein		11.1	Gmet_3172
ribosomal protein L2	rplB	11.1	Gmet_0629
aldehyde:ferredoxin oxidoreductase, tungsten-containing	aorA	11.0	Gmet_1045
2-oxoglutarate:ferredoxin oxidoreductase, alpha subunit	korA	11.0	Gmet_1362
transcriptional regulator, TetR family		11.0	Gmet_0808
DnaJ-related molecular chaperone		11.0	Gmet_3550
translation elongation factor G	fusA-3	11.0	Gmet_0623
efflux pump, RND family, outer membrane lipoprotein		11.0	Gmet_0811
ribosomal protein S11	rpsK	10.9	Gmet_0651
heat shock protein Hsp90	htpG	10.9	Gmet_2498
ribosomal protein L18	rplR	10.9	Gmet_0642
NADH dehydrogenase I, C subunit	nuoC	10.9	Gmet_3353
ribosomal protein S16	rpsP	10.8	Gmet_2871
histone-like protein	hup-2	10.8	Gmet_1608
outer membrane channel OmpJ	ompJ	10.8	Gmet_3254
NADH dehydrogenase I, K subunit	nuoK-1	10.8	Gmet_3345
ribosomal protein L4	rplD	10.8	Gmet_0627
succinyl:acetate coenzyme A transferase	ato-2	10.8	Gmet_1730
lipoprotein, putative		10.7	Gmet_3486
ribosomal protein L13	rplM	10.7	Gmet_0606
ribosomal protein S3	rpsC	10.7	Gmet_0632
hypothetical protein		10.7	Gmet_3552
ethanol dehydrogenase, putative		10.7	Gmet_1046
cell division protein ZapB	zapB	10.7	Gmet_1177
protein of unknown function DUF937		10.7	Gmet_2744
ribosomal protein L6	rplF	10.6	Gmet_0641
hypothetical protein		10.6	Gmet_2745
cell division septum formation protein FtsL, putative	ftsL	10.6	Gmet_0405

NADH dehydrogenase I, J subunit	nuoJ-1	10.6	Gmet_3346
ATP-independent chaperone, alpha-crystallin/Hsp20 family		10.6	Gmet_2635
acyl carrier protein	acpP-2	10.5	Gmet_1602
isocitrate dehydrogenase, NADP-dependent	icd	10.5	Gmet_1359
lipoprotein, putative		10.5	Gmet_1172
NADH dehydrogenase I, A subunit	nuoA-1	10.5	Gmet_3355
ribosomal protein L29	rpmC	10.5	Gmet_0634
hypothetical protein		10.5	Gmet_0113
DNA-directed RNA polymerase, alpha subunit	rpoA	10.4	Gmet_0653
thioredoxin/NifU-like domain protein		10.4	Gmet_3080
ribosomal protein L11	rplK	10.4	Gmet_0615
periplasmic polysaccharide biosynthesis/export protein		10.4	Gmet_2030
hypothetical protein		10.4	Gmet_2781
malate dehydrogenase, NAD-dependent	mdh	10.4	Gmet_1360
NADH dehydrogenase I, N subunit	nuoN-1	10.3	Gmet_3342
hypothetical protein		10.3	Gmet_1546
ribosomal protein S5	rpsE	10.3	Gmet_0643
CxxC_CxxC_SSSS superfamily protein		10.3	Gmet_2576
ribosomal protein S14	rpsN	10.3	Gmet_0639
ribosomal protein L27	rpmA	10.3	Gmet_3196
protein of unknown function DUF164		10.3	Gmet_0400
hypothetical protein		10.3	Gmet_0908
DnaJ adenine nucleotide exchange factor			
GrpE	grpE	10.3	Gmet_3533
hypothetical protein		10.2	Gmet_3436
cytochrome c		10.2	Gmet_1210
CBS and CorC_HlyC domain protein		10.2	Gmet_2368
succinate dehydrogenase/fumarate reductase, cytochrome b558 subunit	frdC	10.2	Gmet_2397
ribosomal protein L31	rpmE	10.2	Gmet_0377
ribosomal subunit interface-associated			
sigma-54 modulation protein RaiA	raiA	10.2	Gmet_1284
ferritin-like domain protein		10.2	Gmet_1928
ribosomal protein S4	rpsD	10.2	Gmet_0652
isoprenoid biosynthesis amidotransferase-like protein ElbB	elbB	10.2	Gmet_3523
hypothetical protein		10.2	Gmet_3502
ribosomal protein L14	rplN	10.2	Gmet_0636
NADH dehydrogenase I, M subunit	nuoM-1	10.1	Gmet_3343
cytochrome c		10.1	Gmet_1544
ferritin-like domain protein		10.1	Gmet_2291
hypothetical protein		10.1	Gmet_2985
polysaccharide chain length determinant protein		10.1	Gmet_2029
hypothetical protein		10.1	Gmet_1729

RNA-binding KH domain protein, putative hypothetical protein		10.0	Gmet_2870
SpoVR-like family protein		10.0	Gmet_1648
succinate dehydrogenase/fumarate reductase, flavoprotein subunit	frdA	10.0	Gmet_0032
outer membrane protein, putative hypothetical protein		10.0	Gmet_2396
cytochrome c		10.0	Gmet_3522
hypothetical protein		10.0	Gmet_3079
2-oxoglutarate:ferredoxin oxidoreductase, gamma subunit	korC	10.0	Gmet_0909
lipoprotein, putative hypothetical protein		10.0	Gmet_0238
NADH dehydrogenase I, E subunit	nuoE-2	10.0	Gmet_1364
iron-sulfur cluster repair protein ScdA	scdA	10.0	Gmet_3515
lipoprotein, putative		10.0	Gmet_0154
PEP motif-containing protein, putative exosortase substrate		10.0	Gmet_3494
ankyrin repeat protein		10.0	Gmet_2979
peptidylprolyl cis-trans isomerase, PpiC-type lytic transglycosylase domain protein		9.9	Gmet_2042
heat-inducible transcription repressor HrcA	hrcA	9.9	Gmet_0162
TPR domain lipoprotein		9.9	Gmet_0815
PEP motif-containing protein, putative exosortase substrate		9.9	Gmet_1953
transcription elongation factor NusG	nusG	9.9	Gmet_3534
2-oxoglutarate:ferredoxin oxidoreductase, thiamin diphosphate-binding subunit	korB	9.9	Gmet_2032
hypothetical protein		9.9	Gmet_0748
anti-anti-sigma factor	rsbV	9.8	Gmet_0614
adenylate kinase	adk	9.8	Gmet_1363
ribosomal protein L36	rpmJ	9.8	Gmet_0044
lipoprotein, putative hypothetical protein		9.8	Gmet_1229
methionine aminopeptidase, type I	map	9.8	Gmet_0647
menaquinol oxidoreductase complex Cbc5, cytochrome b subunit, putative hypothetical protein	cbcB	9.8	Gmet_0649
hypothetical protein		9.8	Gmet_2687
flavin and coenzyme A sequestration protein dodecin		9.8	Gmet_2913
ATP-dependent Lon protease (La)	lon-3	9.7	Gmet_0648
hypothetical protein		9.7	Gmet_2929
NADH dehydrogenase I, G subunit	nuoG-1	9.7	Gmet_2402
hypothetical protein		9.7	Gmet_0293
BioD and DRTGG domain protein		9.7	Gmet_3147
PilZ domain protein		9.7	Gmet_3214
		9.7	Gmet_3638
		9.7	Gmet_3349
		9.7	Gmet_1012
		9.7	Gmet_2733
		9.6	Gmet_0266

toxin, HicA family		9.6	Gmet_1322
molybdopterin biosynthesis sulfur carrier protein sulfurylase	moeB	9.6	Gmet_1043
N-acylhomoserine lactone synthetase-related protein		9.6	Gmet_2038
NADH dehydrogenase I, D subunit	nuoD	9.6	Gmet_3352
hydrogen-dependent growth transcriptional repressor	hgtR	9.6	Gmet_0056
transposase, IS630 family		9.6	Gmet_2039
response receiver		9.6	Gmet_2926
hypothetical protein		9.6	Gmet_2525
peptidylprolyl cis-trans isomerase, PpiC-type		9.6	Gmet_0932
glucose-1-phosphate adenylyltransferase		9.6	Gmet_2768
hypothetical protein		9.6	Gmet_2575
hypothetical protein		9.6	Gmet_2387
response regulator, putative		9.6	Gmet_2679
NADH dehydrogenase I, L subunit	nuoL-1	9.5	Gmet_3344
cytochrome c		9.5	Gmet_0142
translation initiation factor IF-3	infC	9.5	Gmet_1412
superoxide dismutase, iron/manganese-containing	sodA	9.5	Gmet_2410
protein of unknown function, DUF4124-containing		9.5	Gmet_1226
cell division protein FtsZ	ftsZ	9.5	Gmet_0417
hypothetical protein		9.5	Gmet_0401
thioredoxin	trxA	9.5	Gmet_3230
lipoprotein, putative		9.5	Gmet_3526
enolase	eno	9.5	Gmet_2372
hypothetical protein		9.5	Gmet_0989
integration host factor, alpha subunit	ihfA-1	9.5	Gmet_1417
16S rRNA processing protein RimM	rimM	9.5	Gmet_2869
ketol-acid reductoisomerase, class I	ilvC	9.4	Gmet_1262
menaquinol oxidoreductase complex Cbc5, cytochrome c subunit	cbcA	9.4	Gmet_2928
hypothetical protein		9.4	Gmet_1015
sigma-54-dependent transcriptional response regulator		9.4	Gmet_2924
ribosomal protein S9	rpsL	9.4	Gmet_0607
protein of unknown function DUF488		9.4	Gmet_0156
response receiver		9.4	Gmet_2914
geopilin domain 1 protein	pilA-N	9.4	Gmet_1399
ATP-dependent protease, putative		9.4	Gmet_2746
nucleoside diphosphate kinase	ndk	9.4	Gmet_2686
lipoprotein cytochrome c		9.4	Gmet_0910
preprotein translocase, SecY subunit	secY	9.4	Gmet_0646
ribosomal protein S15	rpsO	9.4	Gmet_1590
outer membrane lipoprotein, Slp family		9.3	Gmet_1429
NADH dehydrogenase I, F subunit	nuoF-1	9.3	Gmet_3350
pyridoxamine-5'-phosphate oxidase-related FMN-binding		9.3	Gmet_0160

protein			
hypothetical protein		9.3	Gmet_1025
protein of unknown function DUF2950		9.3	Gmet_1198
OmpH-like outer membrane protein, putative		9.3	Gmet_2356
hemerythrin family protein		9.3	Gmet_0834
chaperonin GroEL	groEL	9.3	Gmet_0029
rubredoxin		9.3	Gmet_3171
ATPase, AAA family		9.3	Gmet_0033
ferredoxin, Rieske superfamily		9.3	Gmet_1018
NADH dehydrogenase I, H subunit	nuoH-1	9.2	Gmet_3348
NADH dehydrogenase I, B subunit	nuoB	9.2	Gmet_3354
helix-turn-helix transcriptional regulator with cupin domain		9.2	Gmet_3438
periplasmic carboxy-terminal processing protease	ctpA-2	9.2	Gmet_1853
16S rRNA (N4-methyl-C1402)-methyltransferase	rsmH	9.2	Gmet_0404
ribosomal protein L1	rplA	9.2	Gmet_0616
universal stress protein Usp	usp-3	9.2	Gmet_3498
hypothetical protein		9.2	Gmet_1149
protein of unknown function DUF3015		9.2	Gmet_2921
chaperone protein DnaJ	dnaJ	9.2	Gmet_3531
acetolactate synthase, small subunit	ilvN	9.2	Gmet_1261
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		9.2	Gmet_3504
cold shock DNA/RNA-binding protein		9.2	Gmet_1266
cytochrome c nitrite and sulfite reductase, catalytic subunit lipoprotein	nrfA-1	9.2	Gmet_0294
flagellar biogenesis master sigma-54-dependent transcriptional response regulator	fgrM	9.2	Gmet_3263
glycosyltransferase		9.2	Gmet_2014
protein of unknown function DUF3343		9.2	Gmet_2873
hypothetical protein		9.2	Gmet_1017
ribosomal protein L25	rplY	9.2	Gmet_2847
ribosomal protein L34	rpmH	9.2	Gmet_3564
thymidylate synthase, FAD-dependent	thyX	9.1	Gmet_0378
protein of unknown function, DUF4124-containing AMMECR1 family protein		9.1	Gmet_2047
helix-turn-helix transcriptional regulator, putative		9.1	Gmet_2688
protein serine/threonine kinase PrkA	prkA	9.1	Gmet_2889
transcriptional regulator, Ros/MucR family		9.1	Gmet_0030
ribosomal protein L35	rpmI	9.1	Gmet_1305
ribosomal protein L9	rplI	9.1	Gmet_1413
phasin superfamily protein		9.1	Gmet_2841
radical SAM domain iron-sulfur cluster-binding		9.1	Gmet_0759
		9.1	Gmet_2971

oxidoreductase with cobalamin-binding-like domain			
menaquinol oxidoreductase complex Cbc3,			
iron-sulfur cluster-binding subunit, putative	cbcV	9.1	Gmet_1922
ribosomal protein L17	rplQ	9.1	Gmet_0654
lipoprotein, putative		9.1	Gmet_0839
peptide chain release factor 1	prfA	9.1	Gmet_0380
ATPase, putative		9.1	Gmet_2026
RNA polymerase sigma-24 factor, putative	rpoE	9.1	Gmet_2612
membrane protein DUF2232, putative		9.1	Gmet_2842
hypothetical protein		9.1	Gmet_2025
VWFA superfamily protein		9.1	Gmet_0031
peptidylprolyl cis-trans isomerase, FKBP-type		9.1	Gmet_3146
hypothetical protein		9.0	Gmet_2027
RNA polymerase sigma-70 factor RpoD	rpoD	9.0	Gmet_0395
hypothetical protein		9.0	Gmet_1199
3-oxoacyl-(acyl carrier protein) synthase II	fabF-2	9.0	Gmet_1603
winged-helix transcriptional response regulator		9.0	Gmet_3383
zinc-dependent peptidase, M16 family		9.0	Gmet_1592
antitoxin, RHH family		9.0	Gmet_A3570
hypothetical protein		9.0	Gmet_1920
UDP-glucose--lipopolysaccharide core heptose I 4-beta-glucosyltransferase, putative		9.0	Gmet_2885
ribosomal protein L33	rpmG	9.0	Gmet_0612
DNA-binding protein, YbaB/EbfC family		9.0	Gmet_3421
peroxiredoxin, 1-Cys subfamily,			
selenocysteine-containing	prx-4	9.0	Gmet_0150
ferredoxin	frx-2	9.0	Gmet_1033
histone-like protein	hup-1	9.0	Gmet_0355
hypothetical protein		9.0	Gmet_2033
lipoprotein cytochrome c		9.0	Gmet_0121
ABC transporter, periplasmic substrate-binding protein, MCE family		9.0	Gmet_0786
adenosine kinase		9.0	Gmet_2388
hypothetical protein		9.0	Gmet_2742
HAD superfamily hydrolase, ferritin-like domain-containing		9.0	Gmet_3083
chorismate mutase		9.0	Gmet_1955
hypothetical protein		9.0	Gmet_2813
SAP domain protein		9.0	Gmet_2569
nitroreductase-like family 3 protein		9.0	Gmet_2835
protein tyrosine kinase, putative		8.9	Gmet_2028
radical SAM domain iron-sulfur cluster-binding oxidoreductase		8.9	Gmet_0015
protein of unknown function DUF2168		8.9	Gmet_2867
N-acylhomoserine lactone synthetase-related protein		8.9	Gmet_2037
barnase family single strand ribonuclease		8.9	Gmet_2616

cytochrome c		8.9	Gmet_1197
ribose-5-phosphate isomerase B	rpiB-1	8.9	Gmet_1604
ribosome recycling factor	frr	8.9	Gmet_1253
ribosomal protein S2	rpsB	8.9	Gmet_1250
lipoprotein cytochrome c		8.9	Gmet_1088
hypothetical protein		8.9	Gmet_3488
chaperonin GroES	groES	8.9	Gmet_0028
cell division protein MraZ	mraZ	8.9	Gmet_0403
thioredoxin-related protein disulfide reductase, putative		8.9	Gmet_3229
cytosolic aminopeptidase, M17 family	pepA	8.9	Gmet_3361
iron-sulfur-oxygen hybrid cluster protein (prismane)	hcp	8.9	Gmet_2834
2-oxoacid dehydrogenase acyltransferase protein		8.9	Gmet_2040
response receiver sensor diguanylate cyclase, PAS domain-containing		8.9	Gmet_1917
hypothetical protein		8.9	Gmet_0233
rhodanese homology domain superfamily protein, selenocysteine-containing		8.8	Gmet_2015
tRNA (N6-threonylcarbamyl-A37) modification ATPase	yrdC	8.8	Gmet_1595
glycogen synthase	glgA-2	8.8	Gmet_3175
sigma-54-dependent transcriptional response regulator		8.8	Gmet_2034
undecaprenyl diphosphate phosphatase	uppP	8.8	Gmet_3133
cytochrome c nitrite and sulfite reductase, menaquinol-oxidizing subunit	nrfH	8.8	Gmet_0295
response regulator, putative		8.8	Gmet_3179
RNA polymerase sigma-32 factor RpoH	rpoH	8.8	Gmet_2854
metallophosphoesterase		8.8	Gmet_0034
hypothetical protein		8.8	Gmet_1100
antitoxin, XRE family		8.8	Gmet_2972
response receiver-related domain protein		8.8	Gmet_1747
desulfoferrodoxin, putative		8.8	Gmet_2613
hypothetical protein, selenocysteine-containing		8.8	Gmet_2622
hypothetical protein		8.8	Gmet_3578
SAM-dependent methyltransferase, putative		8.8	Gmet_2978
NADPH oxidoreductase, beta subunit	sfrB	8.7	Gmet_3023
organic solvent tolerance ABC transporter, periplasmic substrate-binding protein		8.7	Gmet_0784
peroxiredoxin, typical 2-Cys subfamily	prx-1	8.7	Gmet_2723
oxidoreductase, 2-nitropropane dioxygenase family		8.7	Gmet_1293
hypothetical protein		8.7	Gmet_0907
ThiF family protein		8.7	Gmet_2046
peptidylprolyl cis-trans isomerase, PpiC-type, SurA family		8.7	Gmet_3549
response receiver CheY associated with MCPs of class 40H	cheY40H-2	8.7	Gmet_2308
hypothetical protein		8.7	Gmet_2611

translation elongation factor Ts	tsf	8.7	Gmet_1251
MoxR family ATPase		8.7	Gmet_1632
hypothetical protein		8.7	Gmet_3597
cell division protein FtsA	ftsA	8.7	Gmet_0416
DNA-directed RNA polymerase, beta subunit	rpoB	8.7	Gmet_0619
PilZ domain protein		8.7	Gmet_0114
D-alanine--D-alanine ligase, cell division protein FtsQ fusion	ddl/ftsQ	8.7	Gmet_0415
peptidylprolyl cis-trans isomerase, FKBP-type, putative		8.7	Gmet_0259
asparagine synthetase	asnB-2	8.7	Gmet_2024
phosphate-selective outer membrane channel		8.7	Gmet_1042
FemAB superfamily protein		8.7	Gmet_2017
hypothetical protein		8.7	Gmet_0779
hypothetical protein		8.7	Gmet_1951
helix-turn-helix XRE domain protein		8.7	Gmet_1221
glyoxalate/3-oxopropanoate/4-oxobutanoate reductase-related protein		8.7	Gmet_1972
cytochrome c		8.7	Gmet_0825
rhodanese homology domain superfamily protein		8.7	Gmet_1013
glycine cleavage system lipoyl carrier protein GcvH	gcvH	8.7	Gmet_3154
heptapeptide repeat protein		8.7	Gmet_1319
amino acid-binding ACT domain regulatory protein		8.7	Gmet_3554
UDP-N-acetylmuramate--alanine ligase sulfatase	murC	8.6	Gmet_0413
ferritin-like domain protein		8.6	Gmet_0526
LemA family lipoprotein		8.6	Gmet_3242
UDP-N-acetylmuramylalanine--D-glutamate ligase	murD	8.6	Gmet_1371
hypothetical protein		8.6	Gmet_0410
menaquinol oxidoreductase complex Cbc5, cytochrome c subunit	cbcC	8.6	Gmet_3603
protein of unknown function DUF177		8.6	Gmet_2930
hypothetical protein		8.6	Gmet_1596
fructose-1,6-bisphosphatase	fbp	8.6	Gmet_1847
hypothetical protein		8.6	Gmet_1921
6-phosphogluconate dehydrogenase, decarboxylating	gnd	8.6	Gmet_2927
TPR domain protein		8.6	Gmet_2620
acyl-CoA synthetase, AMP-forming		8.6	Gmet_2555
hypothetical protein		8.6	Gmet_2020
ribosomal protein S1	rpsA	8.6	Gmet_1763
zinc finger transcriptional regulator, TraR/DksA family		8.6	Gmet_0867
NADPH-dependent enal/enone/nitroreductase, Oye family	namA	8.6	Gmet_3278
		8.6	Gmet_2577

hypothetical protein		8.6	Gmet_0824
ribosomal protein L32	rpmF	8.6	Gmet_1597
protein of unknown function DUF309		8.6	Gmet_3375
diploptene adenosyltransferase and reductase	hpnH	8.6	Gmet_2823
zinc finger transcriptional regulator, TraR/DksA family response regulator		8.6	Gmet_1007
lipopolysaccharide ABC transporter, periplasmic protein LptA	lptA	8.6	Gmet_1220
nodulin 21-like membrane protein		8.6	Gmet_1281
ATP synthase F1, epsilon subunit	atpC	8.6	Gmet_0169
hypothetical protein		8.6	Gmet_3405
hypothetical protein		8.6	Gmet_0792
NADH dehydrogenase I, H subunit	nuoH-2	8.6	Gmet_1925
RNA-binding protein YlxRQ, putative peptidoglycan transglycosylase and transpeptidase FtsI	ylxRQ	8.5	Gmet_0161
hypothetical protein		8.5	Gmet_1585
hypothetical protein		8.5	Gmet_0406
antibiotic biosynthesis monooxygenase domain protein		8.5	Gmet_1680
hypothetical protein		8.5	Gmet_0968
membrane-bound serine protease NfeD, long form	nfeD	8.5	Gmet_1011
response receiver histidine kinase		8.5	Gmet_3636
tRNA (N1-methyl-G37)-methyltransferase	trmD	8.5	Gmet_0813
ATP-dependent chaperone and Clp protease specificity component ClpX	clpX	8.5	Gmet_1219
hypothetical protein		8.5	Gmet_2868
hypothetical protein		8.5	Gmet_1872
peptidoglycan-binding lipoprotein, OmpA family		8.5	Gmet_A3641
menaquinol oxidoreductase complex Cbc5, cytochrome c subunit putative, HAMP		8.5	Gmet_2615
domain-containing protein	cbcD	8.5	Gmet_2553
peptidoglycan-binding protein, DUF937 and OmpA		8.5	Gmet_2931
domain-containing		8.5	Gmet_2727
magnesium transport protein CorA	corA-2	8.5	Gmet_0134
periplasmic trypsin-like serine protease DegP		8.5	Gmet_3362
heptapeptide repeat protein	degP-1	8.5	Gmet_3658
ribosomal protein L7/L12	rplL	8.5	Gmet_0618
cytochrome c	omcX	8.5	Gmet_2839
acyl-(acyl carrier protein)--UDP-N- acetylglucosamine/UDP-2-N-acetylglucose-			
2, 3-diamine 3-O/N-acyltransferase	lpxA-2	8.5	Gmet_2567
sensor histidine kinase, PAS, PAS, PAS, PAS and PAS			
domain-containing		8.5	Gmet_1218
twin-arginine translocation pathway	tatA	8.5	Gmet_3217

protein, TatA/TatE family				
nucleotidyltransferase, putative		8.5	Gmet_3257	
acyl carrier protein	acpP-3	8.5	Gmet_2021	
succinate dehydrogenase/fumarate reductase, iron-sulfur protein	frdB	8.4	Gmet_2395	
acyl-(acyl carrier protein)--phosphate acyltransferase	plsX	8.4	Gmet_1598	
transcriptional repressor, HgtR-related protein		8.4	Gmet_1047	
lipoprotein, putative		8.4	Gmet_0791	
resolvase-like serine recombinase		8.4	Gmet_3142	
hypothetical protein		8.4	Gmet_0831	
geopilin domain 2 protein	pilA-C	8.4	Gmet_1400	
peptidylprolyl cis-trans isomerase lipoprotein, PpiC-type		8.4	Gmet_3548	
hypothetical protein		8.4	Gmet_2915	
RNA polymerase-binding protein Rnk	rnk	8.4	Gmet_2606	
ribose-5-phosphate isomerase B	rpiB-2	8.4	Gmet_2621	
periplasmic trypsin-like serine protease				
lipoprotein DegP	degP-2	8.4	Gmet_1014	
lipoprotein, putative		8.4	Gmet_0357	
polyribonucleotide nucleotidyltransferase	pnp	8.4	Gmet_1591	
glutaredoxin family protein		8.4	Gmet_2413	
hypothetical protein		8.4	Gmet_2981	
hypothetical protein		8.4	Gmet_3618	
SAM-dependent methyltransferase, putative		8.4	Gmet_2882	
hypothetical protein		8.4	Gmet_A3568	
UDP-N-acetylmuramylalanyl-D-glutamate--2, 6-diaminopimelate ligase	murE	8.4	Gmet_0407	
hypothetical protein		8.4	Gmet_0969	
rhomboid-related membrane protein		8.4	Gmet_2506	
SAM-dependent methyltransferase, putative		8.4	Gmet_2887	
CDP-diacylglycerol--serine O-phosphatidyltransferase	pssA	8.4	Gmet_1264	
sigma-54-dependent transcriptional response regulator		8.3	Gmet_1055	
cytochrome c peroxidase	macA	8.3	Gmet_3091	
iron-sulfur cluster-binding oxidoreductase		8.3	Gmet_2912	
peptide chain release factor 2	prfB	8.3	Gmet_2366	
polysaccharide deacetylase domain protein		8.3	Gmet_2850	
glycosyltransferase		8.3	Gmet_2041	
pyranopterin monophosphate cyclase	moaC	8.3	Gmet_1037	
serine protease, subtilase family		8.3	Gmet_0931	
protein of unknown function DUF111		8.3	Gmet_0194	
cell division protein ZapA	zapA	8.3	Gmet_1178	
NADPH oxidoreductase, alpha subunit	sfrA	8.3	Gmet_3022	
hypothetical protein		8.3	Gmet_A3642	
argininosuccinate synthase	argG	8.3	Gmet_0206	
peptidoglycan-binding inner membrane lipoprotein YiaD,		8.3	Gmet_0509	

OmpA family			
membrane-associated metal-dependent phosphohydrolase, HDc domain-containing ferredoxin	frx-4	8.3	Gmet_2371
pppGpp 5'-phosphohydrolase and exopolyphosphatase, putative	gppA-1	8.3	Gmet_0148
chromosome partitioning ATPase Soj		8.3	Gmet_1828
response regulator		8.3	Gmet_3413
response receiver CheY associated with MCPs of class 44H	cheY44H	8.3	Gmet_1551
GTP/GDP 3'-pyrophosphokinase and (p)ppGpp 3'-pyrophosphohydrolase	relA	8.3	Gmet_3211
leucyl aminopeptidase AmpS, putative		8.3	Gmet_2325
carbonic anhydrase, beta-family, clade C		8.3	Gmet_1594
hypothetical protein		8.3	Gmet_1242
hypothetical protein		8.3	Gmet_2754
phosphoglucomutase/phosphomannomutase family protein		8.3	Gmet_0158
lipoprotein, putative		8.3	Gmet_0990
4-oxalocrotonate tautomerase superfamily protein		8.2	Gmet_2743
tungstate ABC transporter, ATP-binding protein	tupC	8.2	Gmet_1510
outer membrane lipoprotein carrier/sorting protein LolA		8.2	Gmet_1039
sensor histidine kinase, GAF domain-containing deoxyuridine-5'-triphosphate pyrophosphohydrolase	dut	8.2	Gmet_3208
helix-turn-helix iron-sulfur cluster-binding transcriptional regulator IscR	iscR-1	8.2	Gmet_1054
hypothetical protein		8.2	Gmet_1593
phosphocarrier protein HPr	ptsH	8.2	Gmet_2989
bidirectional NAD-reducing hydrogenase, small subunit	hoxS	8.2	Gmet_1237
barnase inhibitor barstar		8.2	Gmet_1288
lipoprotein, putative		8.2	Gmet_1112
TPR domain protein		8.2	Gmet_3604
adenine phosphoribosyltransferase	apt	8.2	Gmet_1233
molybdopterin biosynthesis sulfur carrier protein	moaD	8.2	Gmet_1422
protein of unknown function DUF1130		8.2	Gmet_1044
long-chain acyl-CoA thioesterase, BFIT_BACH family		8.2	Gmet_3491
transglutaminase-like cysteine protease		8.2	Gmet_0769
lipopolysaccharide ABC transporter, periplasmic protein LptC	lptC	8.2	Gmet_1086
cytochrome c	ppcF	8.2	Gmet_1280
protein of unknown function DUF3106		8.2	Gmet_0335
iron-containing alcohol dehydrogenase		8.2	Gmet_2610
protein of unknown function YGGT		8.2	Gmet_1053
		8.2	Gmet_1166

5-formyltetrahydrofolate cyclo-ligase		8.2	Gmet_1179
dihydrolipoamide dehydrogenase	lpdA-3	8.2	Gmet_0177
protein phosphoaspartate phosphatase			
CheC associated with MCPs of class 44H	cheC44H	8.2	Gmet_3210
protein of unknown function DUF520	yajQ	8.2	Gmet_3206
hypothetical protein		8.2	Gmet_A3644
phosphatidylserine decarboxylase, putative		8.2	Gmet_1263
universal stress protein Usp	usp-2	8.2	Gmet_2678
RNA-binding protein Hfq	hfq	8.2	Gmet_2051
IPT/TIG domain protein		8.2	Gmet_1247
2-oxoglutarate dehydrogenase, E2 protein,			
dihydrolipoamide succinyltransferase	sucB	8.2	Gmet_2766
hypothetical protein		8.2	Gmet_3645
hypothetical protein		8.2	Gmet_1976
acetylglutamate kinase	argB	8.2	Gmet_0203
protein of unknown function DUF2288		8.2	Gmet_0126
hypothetical protein		8.1	Gmet_2528
uridylate kinase	pyrH	8.1	Gmet_1252
membrane protein, TerC family		8.1	Gmet_1155
signal recognition particle protein	ffh	8.1	Gmet_2872
succinyl:acetate coenzyme A transferase	ato-1	8.1	Gmet_3044
peptidyl-tRNA hydrolase	pth	8.1	Gmet_2846
aspartate/glutamate/phosphoserine/alanine/cysteate			
aminotransferase, putative		8.1	Gmet_3173
lipoprotein, putative		8.1	Gmet_0271
ATP synthase F1, delta subunit	atpH	8.1	Gmet_3409
sensor cyclic diguanylate phosphodiesterase, GAF and			
GAF domain-containing		8.1	Gmet_2559
glycosyltransferase		8.1	Gmet_2884
ATP-independent chaperone, alpha-crystallin/Hsp20			
family		8.1	Gmet_3215
protein of unknown function UPF0054		8.1	Gmet_2370
TPR domain protein		8.1	Gmet_0856
histidyl-tRNA synthetase	hisS	8.1	Gmet_1913
NrdH-like redox lipoprotein		8.1	Gmet_2919
cytochrome c		8.1	Gmet_0679
glucan phosphorylase		8.1	Gmet_2767
flagellin	fliC	8.1	Gmet_0442
hypothetical protein		8.1	Gmet_2574
glyoxylase-related zinc-dependent hydrolase		8.1	Gmet_1512
lipoprotein, putative		8.1	Gmet_0241
GAF domain phosphoenolpyruvate--protein			
phosphotransferase PtsP	ptsP	8.1	Gmet_2404
ribonuclease G	cafA	8.1	Gmet_3192
molybdate ABC transporter, periplasmic			
molybdate-binding protein	modA	8.1	Gmet_0512

dimetal-binding protein YqfO	yqfO	8.1	Gmet_0399
sensor histidine kinase, NtrB-related protein		8.1	Gmet_2035
cytochrome c		8.1	Gmet_0170
3-oxoacyl-(acyl carrier protein) reductase	fabG-2	8.1	Gmet_1601
ferric uptake regulation protein Fur	fur	8.1	Gmet_2445
undecaprenyl-diphospho-oligosaccharide flippase		8.1	Gmet_2888
integration host factor, beta subunit	ihfB-2	8.1	Gmet_0868
protoporphyrinogen oxidase	hemG	8.1	Gmet_2953
ferredoxin, Rieske superfamily		8.1	Gmet_3194
resolvase-like serine recombinase		8.1	Gmet_3143
MEMO-like protein		8.1	Gmet_1957
molybdopterin-binding protein		8.1	Gmet_0511
rubredoxin reductase, selenocysteine-containing		8.1	Gmet_1148
polysaccharide deacetylase domain protein		8.0	Gmet_2013
GAF domain protein, putative		8.0	Gmet_2614
porphobilinogen synthase	hemB	8.0	Gmet_0189
type II secretion system pseudopilin OxpG	oxpG	8.0	Gmet_1857
respiratory nitrate reductase, cytochrome c	narC-1	8.0	Gmet_0328
ADP-[pyruvate phosphate dikinase]-threonine			
phosphotransferase and [pyruvate phosphate dikinase]-		8.0	Gmet_3384
phosphothreonine--phosphate pyrophosphorylase			
UDP-N-acetylmuramylalanyl-D-glutamyl-2,			
6-diaminopimelate--D-alanyl-D-alanine			
ligase	murF	8.0	Gmet_0408
apolipoprotein N-acyltransferase	Int	8.0	Gmet_2367
hypothetical protein		8.0	Gmet_2954
hypothetical protein		8.0	Gmet_2022
hypothetical protein		8.0	Gmet_0914
mannose-1-phosphate guanylyltransferase and mannose-			
6-phosphate isomerase-related protein		8.0	Gmet_3178
helix-turn-helix domain protein		8.0	Gmet_2681
CRISPR-associated protein Csd1	csd1	8.0	Gmet_1066
lipoprotein cytochrome c		8.0	Gmet_1647
UDP-N-acetylglucosamine--N-			
acetylmuramyl- (pentapeptide)-			
pyrophosphoryl-undecaprenol N-			
acetylglucosamine transferase	murG	8.0	Gmet_0412
hypothetical protein		8.0	Gmet_1563
nucleotide-binding HEPN domain protein		8.0	Gmet_0217
helix-turn-helix transcriptional regulator, GntR family		8.0	Gmet_0062
sulfite reductase, assimilatory		8.0	Gmet_3222
integrase		8.0	Gmet_1783
translation initiation factor IF-1	infA	8.0	Gmet_1837
protein of unknown function DUF477		8.0	Gmet_1372
sensor protein, DUF3365, HAMP and PAS domain-containing, heme-binding		8.0	Gmet_0023

protein glutamate methyltransferase CheR				
associated with MCPs of class 44H	cheR44H	8.0	Gmet_3212	
NADPH oxidoreductase		8.0	Gmet_1074	
nitrogen fixation iron-sulfur cluster				
assembly cysteine desulfurase NifS	nifS-1	8.0	Gmet_0992	
hypothetical protein		8.0	Gmet_3500	
dystroglycan-type cadherin-like domain repeat protein		8.0	Gmet_0933	
ferritin-like domain protein		8.0	Gmet_3145	
flagellar basal body rod protein FlgB	flgB	8.0	Gmet_3115	
peptidoglycan L,D-transpeptidase, YkuD family		8.0	Gmet_2505	
ferrous iron transport protein B	feoB	8.0	Gmet_2444	
nitrogen fixation iron-sulfur cluster				
assembly protein NifU	nifU	8.0	Gmet_0991	
ATP synthase F1, beta subunit	atpD	8.0	Gmet_3406	
hypothetical protein		8.0	Gmet_2392	
transketolase, A protein	tklA	8.0	Gmet_0551	
cyclic diguanylate phosphodiesterase		8.0	Gmet_1365	
periplasmic trypsin-like serine protease				
lipoprotein DegQ	degQ	8.0	Gmet_3437	
transcription termination factor Rho	rho	8.0	Gmet_0376	
PilZ domain protein		8.0	Gmet_3439	
type II secretion system pseudopilin TklG	tklG	8.0	Gmet_0553	
ATP--methionine S-adenosyltransferase	metK-1	7.9	Gmet_1290	
ParA family protein		7.9	Gmet_1849	
selenocysteine lyase	sufS	7.9	Gmet_2006	
ribosomal protein L20	rplT	7.9	Gmet_1414	
cell polarity determinant GTPase MglA	mglA	7.9	Gmet_3417	
preprotein translocase, YajC subunit	yajC	7.9	Gmet_0853	
cell division ATP-dependent zinc protease				
FtsH	ftsH-2	7.9	Gmet_1890	
iron-sulfur cluster-binding flavodoxin		7.9	Gmet_1508	
sensor histidine kinase, GAF domain-containing		7.9	Gmet_3180	
TPR domain lipoprotein		7.9	Gmet_2682	
FemAB superfamily protein		7.9	Gmet_2018	
protein of unknown function UPF0047		7.9	Gmet_0727	
NADPH:quinone oxidoreductase family protein PIG3		7.9	Gmet_0832	
tyrosyl-tRNA synthetase	tyrS	7.9	Gmet_1182	
peptidoglycan-binding outer membrane protein, OMP_b- brl, OmpA and OmpA domain-containing		7.9	Gmet_0775	
DNA-directed RNA polymerase, beta-prime				
subunit	rpoC	7.9	Gmet_0620	
endoribonuclease Y	rny	7.9	Gmet_1180	
zinc metalloendopeptidase M23 domain protein		7.9	Gmet_1854	
fumarate hydratase, class I	fumB	7.9	Gmet_2570	
acyl carrier protein	acpP-4	7.9	Gmet_2339	
UDP-glucose 6-dehydrogenase	ugd	7.9	Gmet_1430	

DNA-directed RNA polymerase, omega subunit	rpoZ	7.9	Gmet_2326
oxidoreductase, short-chain dehydrogenase/reductase family		7.9	Gmet_0422
ribonuclease, Rne/Rng family		7.9	Gmet_2546
protein glutamine deamidase and protein glutamate methyltransferase CheD associated with MCPs of class 44H	cheD44H	7.9	Gmet_3209
hypothetical protein		7.9	Gmet_0272
hypothetical protein		7.9	Gmet_2504
histidine kinase-like ATPase		7.9	Gmet_2540
imidazoleglycerol-phosphate dehydratase	hisB	7.9	Gmet_0386
4-oxobutanoate dehydrogenase	gabD	7.9	Gmet_3395
hypothetical protein		7.9	Gmet_3256
hypothetical protein		7.9	Gmet_0704
RNA-binding S1 domain protein		7.9	Gmet_1102
hypothetical protein		7.9	Gmet_2758
hypothetical protein		7.9	Gmet_1187
protein of unknown function DUF1385		7.9	Gmet_0379
flotillin band_7_stomatin-like domain protein		7.9	Gmet_0814
3-methyl-2-oxobutanoate hydroxymethyltransferase	panB	7.9	Gmet_1642
protein glutamate methyltransferase CheR	cheR-7	7.9	Gmet_2641
NAD(P)H:quinone oxidoreductase			
flavoprotein WrbA	wrbA	7.9	Gmet_0771
peptidoglycan-binding outer membrane lipoprotein Pal, OmpA family		7.9	Gmet_3499
hypothetical protein		7.9	Gmet_0051
peroxiredoxin, typical 2-Cys subfamily	prx-2	7.9	Gmet_3186
translation elongation factor Tu	tuf-1	7.9	Gmet_0624
glyceraldehyde-3-phosphate dehydrogenase, type I	gapB	7.9	Gmet_1211
hypothetical protein		7.9	Gmet_3521
MobA-related glycosyltransferase, putative		7.9	Gmet_0836
radical SAM domain iron-sulfur cluster-binding oxidoreductase, putative		7.9	Gmet_1006
hypothetical protein		7.9	Gmet_3647
ATP-dependent Lon protease (La)	lon-1	7.9	Gmet_2544
toxin, RelE family		7.9	Gmet_2973
3-deoxy-D-arabino-heptulose 7-phosphate synthase	aroF	7.9	Gmet_2375
hypothetical protein		7.8	Gmet_0110
branched-chain 2-oxoacid dehydrogenase complex, E1 protein, alpha subunit, putative	bkdA	7.8	Gmet_2509
response receiver		7.8	Gmet_0762
2-oxoglutarate dehydrogenase, E1 protein	sucA	7.8	Gmet_2769
hypothetical protein		7.8	Gmet_0550

type II secretion system protein PulO, putative	pulO	7.8	Gmet_1861
antitoxin, HicB family		7.8	Gmet_1321
disulfide bond formation oxidoreductase			
DsbA	dsbA	7.8	Gmet_1380
regulatory subunit of short ATP			
phosphoribosyltransferase	hisZ	7.8	Gmet_3259
thioredoxin family protein, selenocysteine-containing	trx-3	7.8	Gmet_0151
ResB-like family cytochrome c		7.8	Gmet_2901
cell division ATP-dependent zinc protease			
FtsH	ftsH-1	7.8	Gmet_2393
DNA primase	dnaG	7.8	Gmet_0394
response receiver sensor histidine kinase response			
regulator, PAS domain-containing		7.8	Gmet_1918
uroporphyrinogen decarboxylase	hemE	7.8	Gmet_0016
hypothetical protein		7.8	Gmet_1678
cytochrome c		7.8	Gmet_3174
protein glutamate methyltransferase CheB and			
methyltransferase CheR	cheBR	7.8	Gmet_0780
protein of unknown function DUF2442		7.8	Gmet_2500
RNA polymerase sigma-38 factor, stationary			
phase	rpoS	7.8	Gmet_1421
excinuclease ABC, A subunit	uvrA	7.8	Gmet_0128
outer membrane channel, putative		7.8	Gmet_1649
efflux pump, RND family, membrane fusion protein		7.8	Gmet_3038
hypothetical protein		7.8	Gmet_1050
cell division protein FtsW	ftsW	7.8	Gmet_0411
hypothetical protein		7.8	Gmet_3441
metal ion efflux pump, RND family, outer membrane			
protein		7.8	Gmet_1549
TPR domain protein		7.8	Gmet_0728
sensor histidine kinase, GAF and GAF domain-containing		7.8	Gmet_3279
NAD-dependent nucleoside diphosphate-sugar			
epimerase/dehydratase		7.8	Gmet_3144
ATP phosphoribosyltransferase, short form	hisGS	7.8	Gmet_0383
chromosomal replication initiator protein			
DnaA	dnaA	7.8	Gmet_0001
glucose-6-phosphate 1-dehydrogenase	zwf	7.8	Gmet_2619
heavy metal transport/detoxification domain protein		7.8	Gmet_1555
toxin, RelE family		7.8	Gmet_A3569
menaquinol oxidoreductase complex ACIII,			
DUF3341 subunit ActD	actD	7.8	Gmet_1813
CDP-diacylglycerol--glycerol-3-phosphate 3-			
phosphatidyltransferase	pgsA-1	7.8	Gmet_1952
quinone biosynthesis kinase AarF, putative		7.8	Gmet_0760
ribonuclease HI	rnhA	7.8	Gmet_0935

1-deoxy-D-xylulose-5-phosphate synthase	dxs-1	7.8	Gmet_2822
squalene cyclase	shc-1	7.8	Gmet_2820
rubredoxin		7.8	Gmet_3241
protein of unknown function DUF343		7.8	Gmet_2346
pyridoxamine-5'-phosphate oxidase-related FMN-binding protein		7.8	Gmet_2650
hypothetical protein		7.8	Gmet_3634
phosphoglycerate mutase family protein		7.8	Gmet_1428
conjugal transfer entry/exclusion protein TrbJ		7.8	Gmet_A3572
ATP--methionine S-adenosyltransferase	metK-2	7.8	Gmet_2549
coenzyme A pyrophosphatase		7.8	Gmet_0068
acetolactate synthase, large subunit, biosynthetic type	ilvB	7.7	Gmet_1260
protein of unknown function DUF2784		7.7	Gmet_2578
glycosyltransferase, CESA-like subfamily		7.7	Gmet_2008
ribosomal protein S18	rpsR	7.7	Gmet_2843
hypothetical protein		7.7	Gmet_2447
glycoside hydrolase, putative		7.7	Gmet_2918
phage tail sheath protein, putative		7.7	Gmet_1128
4-amino-5-hydroxymethyl-2-methylpyrimidine- phosphate kinase and thiamin monophosphate synthase	thiE/thiD	7.7	Gmet_2909
phosphoenolpyruvate carboxykinase, GTP-dependent	pckA	7.7	Gmet_2638
diacylglycerol kinase-like protein		7.7	Gmet_2369
PAP2_like_6 family phosphatase		7.7	Gmet_0525
cyclase/hydrolase, putative		7.7	Gmet_0042
glutamate--dTDP-6-deoxy-D-xylo-hex-3-ulose 3-aminotransferase	fdtB	7.7	Gmet_1325
flagellar hook-length control protein FliK	fliK	7.7	Gmet_3106
response receiver histidine kinase		7.7	Gmet_0350
hypothetical protein		7.7	Gmet_2672
septum formation initiator family protein	divIC	7.7	Gmet_1432
hypothetical protein		7.7	Gmet_0510
membrane protein, putative		7.7	Gmet_0705
asparaginyl-tRNA synthetase	asnS	7.7	Gmet_2412
hypothetical protein		7.7	Gmet_3092
malonyl-CoA--acyl carrier protein transacylase	fabD-2	7.7	Gmet_1600
peroxiredoxin, atypical 2-Cys subfamily	prx-3	7.7	Gmet_0183
acyl-(acyl carrier protein)--UDP-3-O-(3-hydroxyacyl)-glucosamine/UDP-3-N-(3-hydroxyacyl)-glucosidamine 2-N-acyltransferase	lpxD	7.7	Gmet_2355
glutaminyl-tRNA synthetase	glnS	7.7	Gmet_0058
flavodoxin, putative		7.7	Gmet_1442

transporter, DUF21, CBS domain pair and CorC_HlyC domain-containing, putative		7.7	Gmet_1153
acetate kinase	ackA	7.7	Gmet_1034
hypothetical protein		7.7	Gmet_1200
toxin, HicA family		7.7	Gmet_2592
2-oxoacid:ferredoxin oxidoreductase, ferredoxin subunit	vorD	7.7	Gmet_1306
guanylate kinase	gmk	7.7	Gmet_2327
adenylosuccinate synthetase	purA	7.7	Gmet_3260
hypothetical protein		7.7	Gmet_1561
lipoprotein release ABC transporter, ATP-binding protein	lold-1	7.7	Gmet_2358
electron transfer flavoprotein-associated cytochrome b and CCG domain pair iron-sulfur cluster-binding oxidoreductase		7.7	Gmet_0685
sensor histidine kinase, CHASE domain-containing hypothetical protein		7.7	Gmet_2460
ribosome-binding factor A	rbfA	7.7	Gmet_2499
protein of unknown function DUF86		7.7	Gmet_1587
N-acetyl-glutamyl-5-phosphate reductase	argC	7.7	Gmet_3258
membrane protein, UPF0118 superfamily		7.7	Gmet_0608
lipoprotein cytochrome c		7.7	Gmet_1154
zinc finger transcriptional regulator, TraR/DksA family		7.7	Gmet_0913
triosephosphate isomerase	tpi	7.7	Gmet_3204
AspT family membrane protein, TrkA-C domain pair-containing		7.7	Gmet_1948
twitching motility pilus retraction ATPase	pilT-1	7.7	Gmet_2550
hypothetical protein		7.7	Gmet_0199
zinc-dependent amidohydrolase, putative		7.7	Gmet_1192
hypothetical protein		7.7	Gmet_3443
2',5' RNA ligase		7.7	Gmet_2527
hypothetical protein		7.7	Gmet_3530
RepA protein		7.7	Gmet_1516
protein of unknown function DUF2318		7.7	Gmet_A3565
flagellar hook capping protein FlgD	flgD	7.6	Gmet_1554
preprotein translocase, SecE subunit	secE	7.6	Gmet_3105
peptidoglycan L,D-transpeptidase lipoprotein, YkuD family, TPR domain-containing		7.6	Gmet_0613
ribosomal protein L19	rplS	7.6	Gmet_3487
homoserine O-acetyltransferase	metX	7.6	Gmet_2866
ATP synthase F1, alpha subunit	atpA	7.6	Gmet_2783
intracellular protease, Pfpl family, putative		7.6	Gmet_3408
undecaprenyl-phosphate glycosylphosphotransferase		7.6	Gmet_2409
HAD superfamily hydrolase		7.6	Gmet_2031
hypothetical protein		7.6	Gmet_2290
thiamin monophosphate kinase	thiL	7.6	Gmet_2443
		7.6	Gmet_3213

polysaccharide chain length determinant protein		7.6	Gmet_1346
electron transfer flavoprotein, alpha subunit	etfA-1	7.6	Gmet_0684
iron/manganese-dependent transcriptional regulator	ideR	7.6	Gmet_2442
NADH dehydrogenase I, K subunit	nuoK-2	7.6	Gmet_0167
oxidoreductase, flavin-binding protein		7.6	Gmet_2911
YHS/TRASH domain protein		7.6	Gmet_1543
aspartate 4-kinase		7.6	Gmet_1880
hypothetical protein		7.6	Gmet_1473
iron-sulfur cluster-binding oxidoreductase, cyano_FeS_chp family		7.6	Gmet_2049
translation initiation factor IF-2	infB	7.6	Gmet_1586
protein of unknown function DUF1015		7.6	Gmet_2364
cyclic diguanylate phosphodiesterase		7.6	Gmet_1560
acyl-CoA thioesterase		7.6	Gmet_3556
hypothetical protein		7.6	Gmet_2874
ornithine carbamyltransferase	argF	7.6	Gmet_0205
lysyl-tRNA synthetase	lysS	7.6	Gmet_2360
acetylornithine aminotransferase	argD	7.6	Gmet_0204
ribose-5-phosphate 1-pyrophosphokinase	prsA	7.6	Gmet_2848
type II secretion system secretin lipoprotein			
PulQ	pulQ	7.6	Gmet_1859
menaquinol oxidoreductase complex ACIII, cytochrome c subunit	actE	7.6	Gmet_1814
rubredoxin:oxygen/nitric oxide oxidoreductase	roo	7.6	Gmet_3243
membrane protein YqaA	yqaA	7.6	Gmet_0345
heptapeptide repeat protein		7.6	Gmet_1323
acyltransferase, left-handed parallel beta-helix (hexapeptide repeat) family		7.6	Gmet_2333
repeat-containing protein		7.6	Gmet_2043
NADH dehydrogenase I, F subunit	nuoF-2	7.6	Gmet_0157
UDP-glucose--galactose-1-phosphate uridylyltransferase	galT	7.6	Gmet_3176
acyl carrier protein	acpP-1	7.6	Gmet_1689
peptidoglycan-binding domain 1 protein		7.6	Gmet_1679
alpha-amylase family protein		7.6	Gmet_0833
ribonucleoside diphosphate reductase, adenosylcobalamin-dependent, putative		7.6	Gmet_1910
hypothetical protein		7.6	Gmet_2757
TPR domain protein		7.6	Gmet_3216
type IV pilus biogenesis protein PilO	pilO	7.6	Gmet_0973
protoporphyrinogen oxidase	hemY	7.6	Gmet_3551
imidazoleglycerol-phosphate synthase, cyclase subunit	hisF	7.6	Gmet_0389
hypothetical protein		7.6	Gmet_2579

ATP synthase F0, C subunit	atpE	7.6	Gmet_3360
DNA repair exonuclease SbcCD, C subunit, putative	sbcC	7.6	Gmet_1224
acyl-(acyl carrier protein)--UDP-N-acetylglucosamine/UDP-2-N-acetylglucose- 2, 3-diamine 3-O/N-acyltransferase	lpxA-1	7.6	Gmet_2353
HNH endonuclease family protein		7.6	Gmet_0915
protein L-isoaspartate O-methyltransferase	pcm	7.6	Gmet_1420
nitrilase/amidohydrolase superfamily protein, class 5		7.6	Gmet_3536
hypothetical protein		7.6	Gmet_1071
ABC transporter, membrane protein		7.6	Gmet_1553
glyoxalase/bleomycin resistance protein/dioxygenase superfamily protein		7.6	Gmet_2649
preprotein translocase, SecA subunit	secA	7.6	Gmet_0951
corrinoid-binding domain protein		7.6	Gmet_2751
transcriptional regulator, MerR family		7.5	Gmet_1418
cysteine desulfurase family protein		7.5	Gmet_1300
polysaccharide deacetylase domain protein		7.5	Gmet_2023
UDP-N-acetylenolpyruvylglucosamine reductase	murB	7.5	Gmet_0414
pentapeptide repeat protein		7.5	Gmet_1201
dihydroxy-acid dehydratase	ilvD	7.5	Gmet_1259
lipoprotein, putative		7.5	Gmet_1830
(3R)-hydroxyacyl-(acyl carrier protein) dehydratase	fabZ-2	7.5	Gmet_2354
periplasmic carboxy-terminal processing protease	ctpA-1	7.5	Gmet_2713
serine phosphatase, SpolIE domain-containing		7.5	Gmet_3495
glycoside hydrolase, family 57		7.5	Gmet_3177
SAM-dependent methyltransferase, putative		7.5	Gmet_2886
cytochrome c	coxB	7.5	Gmet_0252
5,10-methylenetetrahydrofolate dehydrogenase and			
methylentetrahydrofolate cyclohydrolase	fold-1	7.5	Gmet_0247
major royal jelly-related protein		7.5	Gmet_2448
flagellar hook-basal body complex protein FliE	fliE	7.5	Gmet_3113
aconitate hydratase 2	acnB	7.5	Gmet_1912
histidinol-phosphate aminotransferase	hisC	7.5	Gmet_0385
response regulator, putative		7.5	Gmet_3218
outer membrane channel, putative		7.5	Gmet_0802
hypothetical protein		7.5	Gmet_2044
hypothetical protein		7.5	Gmet_2852
GAF domain protein, putative		7.5	Gmet_2680
lipoprotein, putative		7.5	Gmet_2628
membrane protein implicated in colicin V production		7.5	Gmet_0393
hypothetical protein		7.5	Gmet_2560

sensor histidine kinase, HAMP domain-containing, putative heme-binding site		7.5	Gmet_0554
protein of unknown function DUF503		7.5	Gmet_2411
Rossmann fold nucleotide-binding protein		7.5	Gmet_1267
GTP-dependent translational factor YchF, putative	ychF	7.5	Gmet_2845
lactate racemase	larA	7.5	Gmet_3244
ATP synthase F0, A subunit	atpB	7.5	Gmet_3359
23S rRNA (2-methyl-A2503)-methyltransferase	rImN	7.5	Gmet_2685
germane superfamily lipoprotein, putative		7.5	Gmet_1545
5,10-methylenetetrahydrofolate reductase	metF-1	7.5	Gmet_1160
GDP-L-fucose synthase	fcl	7.5	Gmet_1312
Smr domain protein		7.5	Gmet_2552
hypothetical protein, nonconserved putative heme-binding site		7.5	Gmet_1048
type II secretion system inner membrane protein PulF	pulF	7.5	Gmet_1865
helix-turn-helix transcriptional response regulator, LuxR family		7.5	Gmet_2158
protein of unknown function DUF155		7.5	Gmet_0881
metal ion efflux pump, RND family, membrane fusion protein		7.5	Gmet_1548
lipoprotein, putative		7.5	Gmet_0593
SAM-dependent methyltransferase, type 12		7.5	Gmet_2011
cytochrome c		7.5	Gmet_0912
lipoprotein cytochrome c		7.5	Gmet_0828
PhnB domain protein		7.5	Gmet_2623
menaquinol oxidoreductase complex Cbc5, membrane protein subunit, putative	cbcE	7.5	Gmet_2932
D-3-phosphoglycerate dehydrogenase	serA	7.5	Gmet_2378
cell division protein DivIVA, putative		7.4	Gmet_1165
glyceraldehyde-3-phosphate dehydrogenase, type I	gapA	7.4	Gmet_1946
flavin-dependent oxidoreductase, putative		7.4	Gmet_2045
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain	hpnj	7.4	Gmet_2416
UDP-4-deoxy-4-formamido-L-arabinose--undecaprenyl-phosphate 4-deoxy-4-formamido-L-arabinosyltransferase	arnC	7.4	Gmet_0885
nucleotidyltransferase, putative		7.4	Gmet_0479
aldolase domain protein		7.4	Gmet_2288
cytochrome c		7.4	Gmet_2990
efflux pump, RND family, outer membrane protein		7.4	Gmet_0785
sensor histidine kinase, HAMP domain-containing iron-sulfur cluster-binding oxidoreductase		7.4	Gmet_3157
		7.4	Gmet_0761

tungstate ABC transporter, membrane protein	tupB	7.4	Gmet_1040
cytochrome c		7.4	Gmet_0598
DHH domain phosphoesterase, putative		7.4	Gmet_1877
sensor histidine kinase, GAF and PAS domain-containing		7.4	Gmet_1005
cytidylate kinase-like domain protein		7.4	Gmet_2837
glycogen synthase	glgA-1	7.4	Gmet_0707
RNA pseudouridine synthase, RluA family		7.4	Gmet_0047
dienelactone hydrolase family protein		7.4	Gmet_0790
response receiver histidine kinase		7.4	Gmet_2712
orotate phosphoribosyltransferase	pyrE	7.4	Gmet_1938
NHL repeat domain lipoprotein		7.4	Gmet_2897
aminotransferase, AHBA_synth family		7.4	Gmet_2016
aerobic-type carbon monoxide dehydrogenase, large subunit-like protein		7.4	Gmet_0837
cytochrome bd menaquinol oxidase, subunit II	cydB	7.4	Gmet_1929
ATP synthase F1, gamma subunit	atpG	7.4	Gmet_3407
response receiver		7.4	Gmet_0501
cobalt ABC transporter, membrane protein			
CbiN	cbiN	7.4	Gmet_0473
sensor histidine kinase, PAS domain-containing		7.4	Gmet_2159
protein of unknown function DUF2156		7.4	Gmet_0720
protein of unknown function DUF1847		7.4	Gmet_0127
S-adenosyl-L-homocysteine hydrolase	ahcY	7.4	Gmet_1294
EVE domain protein		7.4	Gmet_2363
phosphatidylglycerophosphatase A	pgpA	7.4	Gmet_0195
transcription elongation factor GreA	greA	7.4	Gmet_1775
hypothetical protein		7.4	Gmet_0424
NADH dehydrogenase I, L subunit	nuoL-2	7.4	Gmet_0168
protein of unknown function DUF1573		7.4	Gmet_1031
cell polarity determinant GTPase-activating protein MgIB	mglB	7.4	Gmet_3418
hypothetical protein		7.4	Gmet_0232
4-amino-5-hydroxymethyl-2-methylpyrimidine- phosphate synthase	thiC-2	7.4	Gmet_0471
pppGpp 5'-phosphohydrolase and exopolyphosphatase, HD domain-containing			
lipoprotein, putative	gppA-2	7.4	Gmet_0880
response regulator, putative		7.4	Gmet_1511
molybdopterin--molybdenum ligase	moeA-1	7.4	Gmet_3414
protein of unknown function DUF86		7.4	Gmet_1038
5,10-methylenetetrahydrofolate dehydrogenase and methenyltetrahydrofolate cyclohydrolase	fold-2	7.4	Gmet_1162
hypothetical protein		7.4	Gmet_0037

NUDIX hydrolase		7.4	Gmet_0988
antitoxin, Phd family		7.4	Gmet_3077
protein glutamate methyltransferase CheR			
associated with MCPs of classes 40H and			
40+24H	cheR64H	7.4	Gmet_3267
UDP-N-acetylglucosamine 1-			
carboxyvinyltransferase	murA	7.4	Gmet_0382
amino acid aminotransferase, putative	bamJ	7.4	Gmet_2078
glutamyl-5-phosphate reductase	proA	7.4	Gmet_3199
signal peptidase I	lepB	7.4	Gmet_1767
sensor histidine kinase, PAS domain-containing			
transcription elongation factor NusA	nusA	7.4	Gmet_0731
lipoprotein, putative		7.4	Gmet_1584
hypothetical protein		7.4	Gmet_1999
hypothetical protein		7.4	Gmet_1207
hypothetical protein		7.4	Gmet_3623
NADPH:quinone oxidoreductase family protein		7.4	Gmet_1636
hypothetical protein		7.4	Gmet_0231
protein of unknown function DUF399		7.4	Gmet_1313
3-deoxy-D-arabino-heptulosonate 7-		7.4	Gmet_0349
phosphate synthase	aroG-1	7.4	Gmet_0024
sodium/proton antiporter family protein		7.4	Gmet_1089
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase with cobalamin-binding-like domain		7.4	Gmet_0609
ribosomal protein L28	rpmB	7.4	Gmet_2323
PSP1 superfamily protein		7.4	Gmet_2320
hypothetical protein		7.3	Gmet_0911
hypothetical protein		7.3	Gmet_1748
CRISPR-associated endoribonuclease Cas2	cas2	7.3	Gmet_1073
cytochrome c		7.3	Gmet_3587
purine nucleoside phosphoramidase	hinT	7.3	Gmet_1225
BioD and DRTGG domain protein		7.3	Gmet_2784
bidirectional NAD-reducing hydrogenase,			
diaphorase subunit	hoxF	7.3	Gmet_1110
transport protein, Tim44-like domain, putative		7.3	Gmet_1927
ATP-dependent Lon protease (La)	lon-2	7.3	Gmet_1871
P-loop-containing kinase UPF0042		7.3	Gmet_1286
PATAN domain GTPase-activating protein, putative		7.3	Gmet_0829
apocytochrome c	resA	7.3	Gmet_2452
lipoprotein, putative		7.3	Gmet_2590
cytochrome c		7.3	Gmet_2048
glycosyltransferase		7.3	Gmet_2000
SPOR domain protein		7.3	Gmet_1435
peptidoglycan L,D-transpeptidase, YkuD family, LysM			
domain-containing		7.3	Gmet_2980
biopolymer transport membrane proton channel, TolQ-		7.3	Gmet_3537

related protein				
hypothetical protein			7.3	Gmet_0025
oligoendopeptidase F	pepF		7.3	Gmet_1295
flavoredoxin			7.3	Gmet_1443
DNA gyrase, A subunit	gyrA		7.3	Gmet_0005
aspartate-4-semialdehyde dehydrogenase	asd-2		7.3	Gmet_0603
phosphoribosylglycinamide				
formyltransferase, folate-dependent	purN		7.3	Gmet_1845
sensor histidine kinase, PAS and GAF domain-containing			7.3	Gmet_0197
hypothetical protein			7.3	Gmet_1741
hypothetical protein			7.3	Gmet_0496
lipoprotein, putative			7.3	Gmet_A3643
ABC transporter, periplasmic substrate-binding protein, MCE domain-containing			7.3	Gmet_1272
ATP synthase F0, B' subunit	atpX		7.3	Gmet_3411
peptidoglycan transglycosylase and transpeptidase MrcA	mrcA		7.3	Gmet_0354
nucleotidyltransferase			7.3	Gmet_1320
lipoyl carrier protein LarG	larG		7.3	Gmet_0985
lipid A biosynthesis acyltransferase			7.3	Gmet_0091
aspartate ammonia-lyase	aspA		7.3	Gmet_3082
helix-turn-helix transcriptional regulator, IclR family			7.3	Gmet_3027
protease, Abi superfamily, putative			7.3	Gmet_2036
periplasmic energy transduction protein, TonB-related protein			7.3	Gmet_1158
ABC transporter, ATP-binding protein			7.3	Gmet_2407
carbon starvation protein CstA	cstA-1		7.3	Gmet_2948
scaffold protein CheW associated with MCPs of class 40H	cheW40H- 1		7.3	Gmet_2309
ribonucleoside diphosphate reductase, adenosylcobalamin-dependent	nrdJ		7.3	Gmet_1297
NADH dehydrogenase I, B/C/D subunits	nuoBCD		7.3	Gmet_0153
type VI secretion system needle tube protein TssD	tssD		7.3	Gmet_0280
type II secretion system major pseudopilin GspG	gspG		7.3	Gmet_3367
glutamyl-tRNA reductase	hemA		7.3	Gmet_3233
antibiotic biosynthesis monooxygenase domain protein			7.3	Gmet_1662
efflux pump, RND family, outer membrane lipoprotein			7.3	Gmet_1666
arylsulfotransferase			7.3	Gmet_1382
protein of unknown function DUF2461			7.3	Gmet_2951
hypothetical protein			7.3	Gmet_1091
hypothetical protein			7.3	Gmet_1808
flagellar hook-filament junction protein FlgL	flgL		7.3	Gmet_0439
hypothetical protein			7.3	Gmet_2361
hypothetical protein			7.3	Gmet_2925

YdcF-like protein of unknown function DUF218		7.3	Gmet_2322
ferredoxin	frx-1	7.3	Gmet_1241
hypothetical protein		7.3	Gmet_0074
dehypoxanthinylfutalosine cyclase, putative	mqnC-1	7.3	Gmet_3390
hypothetical protein		7.3	Gmet_3188
hypothetical protein		7.3	Gmet_1792
type II secretion system protein GspM, putative	gspM	7.3	Gmet_3373
carbonic anhydrase, beta-family, clade B	can	7.3	Gmet_3517
hydroxymethylbilane synthase	hemC	7.3	Gmet_3234
outer membrane lipoprotein carrier/sorting protein LolA		7.3	Gmet_1698
CTP synthetase	pyrG	7.3	Gmet_1276
hypothetical protein		7.3	Gmet_0894
PATAN domain protein		7.3	Gmet_1366
undecaprenyl-diphospho-4-formamido-4-deoxy-L- arabinose deformylase, putative	arnD	7.2	Gmet_0882
ABC transporter, ATP-binding protein	ybhF-N1	7.2	Gmet_0658
hypothetical protein		7.2	Gmet_0353
excinuclease ABC, B subunit	uvrB	7.2	Gmet_3219
3'-to-5' exonuclease YhaM	yhaM	7.2	Gmet_2675
anaerobic magnesium-protoporphyrin IX monomethyl ester oxidative cyclase-related enzyme		7.2	Gmet_0597
hypothetical protein		7.2	Gmet_1115
TPR domain protein		7.2	Gmet_2403
respiratory nitrate reductase, molybdopterin-binding alpha subunit	narG-2	7.2	Gmet_1020
protein of unknown function DUF3793		7.2	Gmet_2833
lipoprotein, putative		7.2	Gmet_3626
protein of unknown function DUF151		7.2	Gmet_2295
cytidylate kinase-like domain phospholipid-binding protein, putative		7.2	Gmet_1979
sensor histidine kinase, HAMP domain-containing		7.2	Gmet_0701
3-deoxy-D-manno-octulosonate-8-phosphate synthase	kdsA	7.2	Gmet_1277
hypothetical protein		7.2	Gmet_2756
flagellar M-ring mounting plate protein FliF	fliF	7.2	Gmet_3112
phosphoribosylaminoimidazole-succinocarboxamide synthase	purC	7.2	Gmet_0916
menaquinol oxidoreductase complex Cbc3,			
cytochrome c subunit	cbcX	7.2	Gmet_1924
ribosome biogenesis GTPase ObgE	obgE	7.2	Gmet_3197
2-oxoacid:ferredoxin oxidoreductase, gamma subunit	vorC	7.2	Gmet_1309
hypothetical protein		7.2	Gmet_1956
phosphoglucosamine mutase	glmM	7.2	Gmet_1886
membrane GTPase LepA	lepA	7.2	Gmet_1766
transglutaminase domain protein		7.2	Gmet_0053

hypothetical protein		7.2	Gmet_2335
hypothetical protein		7.2	Gmet_0026
replicative DNA helicase	dnaB	7.2	Gmet_2568
hypothetical protein		7.2	Gmet_2548
hypothetical protein		7.2	Gmet_A3566
phosphoenolpyruvate--protein			
phosphotransferase	ptsI	7.2	Gmet_1289
3-oxoacyl-(acyl carrier protein) synthase III	fabH-2	7.2	Gmet_1599
magnesium transport protein CorA	corA-1	7.2	Gmet_1189
glutamine synthetase, type I	glnA	7.2	Gmet_1352
heptapeptide repeat protein		7.2	Gmet_3659
pyridoxamine-5'-phosphate oxidase-related FMN-binding protein		7.2	Gmet_1909
HEAT-like repeat-containing protein		7.2	Gmet_2306
imidazoleglycerol-phosphate synthase, glutamine amidotransferase subunit	hisH	7.2	Gmet_0387
toxin, MazF family		7.2	Gmet_2503
membrane protein, putative		7.2	Gmet_3456
4-amino-5-hydroxymethyl-2-methylpyrimidine- phosphate synthase	thiC-1	7.2	Gmet_2910
[acyl-]glycerolphosphate acyltransferase		7.2	Gmet_0934
flagellin export facilitator protein FliS	fliS	7.2	Gmet_0445
lipoprotein, putative		7.2	Gmet_3514
ketose-1,6-bisphosphate aldolase, class II, putative		7.2	Gmet_1761
glycosyltransferase		7.2	Gmet_2880
metal-dependent phosphoesterase, PHP family		7.2	Gmet_1975
hydroxypyruvate reductase, putative	hprA	7.2	Gmet_2695
hypothetical protein		7.2	Gmet_0446
hypothetical protein		7.2	Gmet_1980
DnaJ domain protein		7.2	Gmet_0112
antitoxin, XRE family		7.2	Gmet_2534
ornithine:glutamate N-acetyltransferase	argJ	7.2	Gmet_0952
hypothetical protein		7.2	Gmet_0826
endonuclease III family protein		7.2	Gmet_1654
PEP motif-containing protein, putative exosortase substrate		7.2	Gmet_2725
ferredoxin	frx-5	7.2	Gmet_3492
UDP-glucuronate decarboxylase	uxs	7.2	Gmet_1431
peroxiredoxin-like 2 family protein, selenocysteine-containing		7.2	Gmet_3516
tungstate ABC transporter, periplasmic			
tungstate-binding protein	tupA	7.2	Gmet_1041
hypothetical protein		7.2	Gmet_2547
glycosyltransferase		7.2	Gmet_2010
hypothetical protein		7.2	Gmet_2648
thiamin biosynthesis sulfur carrier protein	this-1	7.2	Gmet_2933

ATPase DUF815, putative		7.2	Gmet_1239
twitching motility pilus retraction ATPase	pilT-2	7.2	Gmet_0260
organic solvent tolerance ABC transporter, ATP-binding protein		7.2	Gmet_0787
protein of unknown function DUF3373		7.2	Gmet_3090
dihydridopicolinate reductase	dapB	7.2	Gmet_0212
acetate kinase-related protein		7.2	Gmet_0149
Rossmann fold nucleotide-binding protein		7.2	Gmet_1655
hypothetical protein		7.2	Gmet_3376
hypothetical protein		7.2	Gmet_2965
cysteinyl-tRNA synthetase	cysS	7.2	Gmet_0057
ribosomal protein S20	rpsT	7.1	Gmet_2297
ABC transporter, membrane protein		7.1	Gmet_3036
4-hydroxybenzoyl-CoA reductase subunit	pcmT	7.1	Gmet_2136
peptidoglycan-binding domain protein, putative		7.1	Gmet_1188
nucleotidyltransferase, putative		7.1	Gmet_0216
sigma-54-dependent transcriptional response regulator		7.1	Gmet_0812
response receiver CheY	cheY-11	7.1	Gmet_0778
adenosine nucleotide alpha-hydrolase superfamily protein		7.1	Gmet_2987
peptidase, putative		7.1	Gmet_1209
phosphoribosylformylglycinamidine synthase, PurQ domain protein	purQ	7.1	Gmet_1940
relaxase/mobilization nuclease domain protein	MobA	7.1	Gmet_A3574
respiratory nitrate reductase, molybdopterin-binding alpha subunit	narG-1	7.1	Gmet_0329
nickel-binding domain transcriptional regulator	nikR	7.1	Gmet_0494
PEP motif-containing protein, putative exosortase substrate		7.1	Gmet_2608
response receiver histidine kinase		7.1	Gmet_2677
lipoprotein, putative		7.1	Gmet_3148
zinc-dependent peptidase, M16 family		7.1	Gmet_0052
aerobic-type carbon monoxide dehydrogenase, small subunit-like protein		7.1	Gmet_3490
2',3'-cyclic nucleotide 2'-phosphodiesterase		7.1	Gmet_1181
metal-dependent hydrolase, beta-lactamase superfamily lipoprotein		7.1	Gmet_1507
nuclease, putative		7.1	Gmet_2526
respiratory nitrate reductase, iron-sulfur cluster-binding beta subunit	narH-2	7.1	Gmet_1021
acetyl-CoA carboxylase, biotin carboxyl carrier protein	accB	7.1	Gmet_0983
peptidase lipoprotein, M48 family		7.1	Gmet_1238
respiratory nitrate reductase, iron-sulfur cluster-binding beta subunit	narH-1	7.1	Gmet_0330
sigma-54-dependent sensor transcriptional regulator,		7.1	Gmet_0339

PAS domain-containing				
uncharacterized protein SlyX	slyX	7.1	Gmet_0017	
4-hydroxybenzoyl-CoA reductase				
molybdenum cofactor biosynthesis protein, putative	pcmW	7.1	Gmet_2139	
sensor histidine kinase, nonconserved putative heme-binding site		7.1	Gmet_2287	
flagellar hook-associated protein FlgK	flgK	7.1	Gmet_0438	
hypothetical protein		7.1	Gmet_2566	
hypothetical protein		7.1	Gmet_1515	
UDP-glucuronate 4-dehydrogenase, decarboxylating	arnA	7.1	Gmet_0883	
hypothetical protein		7.1	Gmet_3605	
dephospho-coenzyme A kinase		7.1	Gmet_3026	
menaquinol oxidoreductase complex ACIII, iron-sulfur cluster-binding subunit ActB2	actB2	7.1	Gmet_1811	
adenylyltransferase, putative		7.1	Gmet_2007	
ABC transporter, ATP-binding protein		7.1	Gmet_2542	
SAM-dependent methyltransferase, putative		7.1	Gmet_2955	
protein of unknown function DUF37		7.1	Gmet_3562	
hypothetical protein		7.1	Gmet_3457	
protein of unknown function DUF3108		7.1	Gmet_2836	
outer membrane channel, putative		7.1	Gmet_1101	
pyruvate dehydrogenase complex, E1 protein, beta subunit	pdhB	7.1	Gmet_2753	
GAF sensor methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-1	7.1	Gmet_1641	
TrkA domain protein		7.1	Gmet_0063	
lipoprotein, putative		7.1	Gmet_3557	
dihydrolipoamide dehydrogenase	lpdA-1	7.1	Gmet_2764	
protein of unknown function, DUF523 and DUF1722		7.1	Gmet_2759	
4-hydroxybenzoyl-CoA reductase				
maturity factor, putative	pcmU	7.1	Gmet_2137	
hypothetical protein		7.1	Gmet_1270	
ParB-like nuclease domain protein, putative transcriptional regulator		7.1	Gmet_3412	
RNA polymerase sigma-54 factor RpoN	rpoN	7.1	Gmet_1283	
queuine tRNA-ribosyltransferase	tgt-2	7.1	Gmet_0852	
CRISPR-associated protein Csd2	csd2	7.1	Gmet_1067	
polyphosphate kinase	ppk	7.1	Gmet_0133	
CRISPR-associated exonuclease Cas4	cas4	7.1	Gmet_1070	
sigma-54-dependent transcriptional response regulator		7.1	Gmet_0555	
helix-turn-helix SAM-dependent methyltransferase		7.1	Gmet_1733	
metal ion efflux pump, RND family, inner membrane protein		7.1	Gmet_1547	
sirohydrochlorin cobaltochelatase	cbiX	7.1	Gmet_0476	
selenium metabolism protein YedF,	yedF	7.1	Gmet_1085	

putative				
4-diphosphocytidyl-2-C-methyl-D-erythritol kinase	ispE	7.1	Gmet_2849	
threonyl-tRNA synthetase	thrS	7.1	Gmet_1411	
hypothetical protein		7.1	Gmet_1656	
endoribonuclease L-PSP		7.1	Gmet_2324	
hypothetical protein		7.0	Gmet_0508	
PilZ domain protein		7.0	Gmet_0459	
glucosamine-1-phosphate N-acetyltransferase and N-acetylglucosamine-1-phosphate uridylyltransferase	glmU	7.0	Gmet_0103	
large-conductance mechanosensitive channel protein	mscL	7.0	Gmet_2522	
lipoprotein signal peptidase	lspA	7.0	Gmet_0352	
peptidoglycan L,D-transpeptidase lipoprotein, YkuD family, SPOR domain-containing		7.0	Gmet_3485	
neutral zinc metallopeptidase, putative		7.0	Gmet_2726	
3-oxoacyl-(acyl carrier protein) reductase	fabG-1	7.0	Gmet_1694	
nicotinate-nucleotide--dimethylbenzimidazole phosphoribosyltransferase	cobT	7.0	Gmet_0467	
molybdopterin nucleotidyltransferase and molybdopterin-guanine dinucleotide biosynthesis protein				
MobB		7.0	Gmet_0300	
hypothetical protein		7.0	Gmet_3132	
lipopolysaccharide ABC transporter, ATP-binding protein	lptB	7.0	Gmet_1282	
peptidase, M48 family		7.0	Gmet_0109	
NHL repeat domain lipoprotein		7.0	Gmet_1869	
pyruvate kinase	pyk	7.0	Gmet_0122	
GDP-mannose 4,6-dehydratase and GDP-6-deoxy-D-lyxo-4-hexulose reductase	gmd-1	7.0	Gmet_1311	
twitching motility pilus retraction ATPase	pilT-4	7.0	Gmet_1394	
6-phosphogluconolactonase	pgl	7.0	Gmet_2618	
hypothetical protein		7.0	Gmet_1740	
ATP synthase F0, B subunit	atpF	7.0	Gmet_3410	
D-lactate dehydrogenase, flavoprotein subunit, putative	larD	7.0	Gmet_3245	
outer membrane protein assembly complex protein YaeT	yaeT	7.0	Gmet_2357	
ABC transporter, ATP-binding protein		7.0	Gmet_1407	
membrane-bound zinc-dependent protease HtpX	htpX	7.0	Gmet_1156	
pyranopterin triphosphate synthase	moaA-1	7.0	Gmet_0301	
phosphoglycerate mutase, 2,3-bisphosphoglycerate-independent	gpml	7.0	Gmet_3203	
phosphoenolpyruvate synthase	ppsA	7.0	Gmet_0770	

sigma-54-dependent transcriptional response regulator		7.0	Gmet_0776
aconitate hydratase, putative		7.0	Gmet_2763
GTPase-activating protein, putative		7.0	Gmet_1175
protein export membrane protein SecD	secD	7.0	Gmet_0854
glycosyltransferase, WbnK-like family		7.0	Gmet_2004
cupin superfamily barrel domain protein		7.0	Gmet_0564
phosphoribosylformylglycinamidine			
synthase, PurS and PurL domains	purSL	7.0	Gmet_1941
TPR domain protein		7.0	Gmet_1635
cytochrome c	ccdA-1	7.0	Gmet_2451
glutamine--phosphoribosylpyrophosphate			
amidotransferase	purF	7.0	Gmet_1939
sensor histidine kinase, Cache_1, HAMP and PAS domain-containing		7.0	Gmet_2811
L-aspartate oxidase	nadB	7.0	Gmet_1954
UDP-N-acetylglucosamine 3-dehydrogenase, NAD-dependent	gnnA	7.0	Gmet_2352
translation elongation factor G	fusA-1	7.0	Gmet_1985
ATP-dependent RNA helicase RhIE	rhIE-1	7.0	Gmet_3043
lipoprotein, putative		7.0	Gmet_1301
toxin, RelE family		7.0	Gmet_0314
kinase, putative		7.0	Gmet_1232
lipopolysaccharide biogenesis outer membrane chaperone lipoprotein LptE, putative	lptE	7.0	Gmet_2299
protein of unknown function UPF0027		7.0	Gmet_1619
hypothetical protein		7.0	Gmet_2625
sensor histidine kinase, CHASE domain-containing		7.0	Gmet_2762
DNA polymerase III, gamma and tau subunits	dnaX	7.0	Gmet_3422
hypothetical protein		7.0	Gmet_1010
hypothetical protein		7.0	Gmet_0277
sensor histidine kinase, HAMP domain-containing, 2 heme-binding sites		7.0	Gmet_2923
translation elongation factor P	efp-2	7.0	Gmet_1838
peptidoglycan-binding outer membrane lipoprotein Pal, OmpA family		7.0	Gmet_3541
response receiver sensor protein serine/threonine phosphatase, PP2C family, PAS and PAS domain-containing		7.0	Gmet_2818
lipoprotein cytochrome c		7.0	Gmet_0827
acetyl-CoA carboxylase, biotin carboxylase component	accC	7.0	Gmet_0984
sodium/phosphate symporter, putative		7.0	Gmet_1829
phospholipid-binding domain protein, putative		7.0	Gmet_0421
hydrolase, putative		7.0	Gmet_1621
nucleotidyltransferase-related protein		7.0	Gmet_1316

hypothetical protein		7.0	Gmet_1052
branched-chain 2-oxoacid dehydrogenase complex, E2 protein, dihydrolipoamide acyltransferase, putative	bkdF	7.0	Gmet_2511
hypothetical protein		7.0	Gmet_1673
sensor histidine kinase, HAMP domain-containing outer membrane channel, putative		7.0	Gmet_3382
efflux pump, RND family, outer membrane protein		7.0	Gmet_1745
flagellar basal body-associated protein FliL	fliL	7.0	Gmet_1190
bidirectional NAD-reducing hydrogenase, diaphorase subunit	hoxE	7.0	Gmet_3101
preprotein translocase subunit YidC	yidC	7.0	Gmet_1109
tryptophan synthase, beta subunit	trpB1	7.0	Gmet_3561
decarboxylase, BtrK-related protein		7.0	Gmet_2482
O-acetyl-L-homoserine sulfhydrylase	metY-1	7.0	Gmet_2019
protein export membrane protein SecF	secF	7.0	Gmet_2390
type IV pilus biogenesis ATPase PilB	pilB	7.0	Gmet_0855
CHAD domain protein		7.0	Gmet_1393
membrane transglycosylase and transpeptidase PBP1A		7.0	Gmet_0879
serine protease with TPR domains, putative		6.9	Gmet_1671
lipoprotein, putative		6.9	Gmet_3052
creatinine amidohydrolase superfamily protein		6.9	Gmet_1702
peptidoglycan-binding lipoprotein, SPOR and NLPC_P60 domain-containing		6.9	Gmet_1659
aldehyde:ferredoxin oxidoreductase, tungsten-containing toxin, RelE family		6.9	Gmet_2365
periplasmic substrate-binding sensor protein, putative		6.9	Gmet_2289
ABC transporter, periplasmic substrate-binding protein		6.9	Gmet_0316
aspartate-4-semialdehyde dehydrogenase	asd-1	6.9	Gmet_2761
hypothetical protein		6.9	Gmet_1746
hypothetical protein		6.9	Gmet_0604
sensor histidine kinase cyclic nucleotide phosphodiesterase, GAF, GAF and HD-GYP-related domain-containing		6.9	Gmet_0506
sensor histidine kinase response receiver diguanylate cyclase		6.9	Gmet_1991
tRNA (2-methylthio-N6-dimethylallyl-A37)		6.9	Gmet_0043
methylthiotransferase	miaB	6.9	Gmet_2296
glycine cleavage system P protein, subunit 2	gcvP2	6.9	Gmet_3152
efflux pump, RND family, membrane fusion protein		6.9	Gmet_2408
pyridoxine-5'-phosphate synthase	pdxJ	6.9	Gmet_1885
undecaprenyl-diphospho-oligosaccharide flippase		6.9	Gmet_2012
dihydrodipicolinate synthase	dapA	6.9	Gmet_0211
nuclease, putative		6.9	Gmet_3053
nitrogen fixation master sensor histidine kinase, PAS domain-containing	gnfL	6.9	Gmet_2562

redox-active membrane protein		6.9	Gmet_1779
type IV pilus assembly protein PilY1	pilY1-2	6.9	Gmet_0967
hypothetical protein		6.9	Gmet_0835
anti-sigma factor, protein serine/threonine kinase	rsbW	6.9	Gmet_1228
bis-adenosyl-polyphosphate hydrolase, FHIT domain-containing		6.9	Gmet_1638
protein of unknown function DUF143		6.9	Gmet_3201
hypothetical protein		6.9	Gmet_0347
transcriptional regulator, TetR family		6.9	Gmet_0420
ABC transporter, periplasmic substrate-binding protein, MCE domain-containing		6.9	Gmet_2541
cell division ABC transporter, membrane protein FtsX, putative	ftsX	6.9	Gmet_1855
sensor histidine kinase PilS, PAS domain-containing	pilS	6.9	Gmet_1396
glucose-1-phosphate uridylyltransferase	galU	6.9	Gmet_1159
cytochrome c		6.9	Gmet_2432
hypothetical protein		6.9	Gmet_0138
rubererythrin		6.9	Gmet_0668
protein of unknown function DUF327		6.9	Gmet_1618
membrane protein, putative		6.9	Gmet_1367
PEP motif-containing outer membrane channel, putative exosortase substrate		6.9	Gmet_0783
PilZ domain protein		6.9	Gmet_0725
regulator, PATAN and FRGAF domain-containing, putative		6.9	Gmet_2313
uroporphyrinogen III C2,C7-methyltransferase and uroporphyrinogen III synthase	hemD	6.9	Gmet_3235
transglutaminase/protease-like domain membrane protein		6.9	Gmet_1634
hypothetical protein		6.9	Gmet_0546
cytochrome c		6.9	Gmet_0601
dTDP-3-amino-3,6-dideoxy-D-galactose N-acetyltransferase and dTDP-6-deoxy-D-hex-4-ulose isomerase	fdtC/fdtA	6.9	Gmet_1324
peptidoglycan-binding protein, OmpA family		6.9	Gmet_1832
hypothetical protein		6.9	Gmet_A3577
NADH dehydrogenase I, M subunit	nuoM-2	6.9	Gmet_0171
excinuclease ABC, C subunit	uvrC	6.9	Gmet_3228
flagellar motor switch protein FliG	fliG	6.9	Gmet_3111
response receiver sensor diguanylate cyclase, GAF domain-containing		6.9	Gmet_1914
sensor diguanylate cyclase/phosphodiesterase		6.9	Gmet_2629
queuine tRNA-ribosyltransferase	tgt-1	6.9	Gmet_2398
undecaprenyl-diphospho-oligosaccharide flippase		6.9	Gmet_1326

GTP-binding domain protein		6.9	Gmet_1982
hypothetical protein		6.9	Gmet_2755
pyruvate dehydrogenase complex, E1			
protein, alpha subunit	pdhA	6.9	Gmet_2760
fatty acyltransferase-like lipase, putative		6.9	Gmet_2594
redox-active protein, C_GCAxxG_C_C family, putative		6.9	Gmet_3126
hypothetical protein		6.9	Gmet_0139
N-acetylglutamate synthase	argA	6.9	Gmet_0946
hypothetical protein		6.9	Gmet_0036
lytic transglycosylase, SLT, LysM and LysM domain-containing		6.9	Gmet_2556
DNA repair exonuclease SbcCD, D subunit, putative	sbcD	6.9	Gmet_1223
cytochrome bd menaquinol oxidase, subunit I	cydA	6.9	Gmet_1930
cytochrome c	ppcB	6.9	Gmet_3166
cob(I)yrinate a,c-diamide adenosyltransferase	cobA	6.9	Gmet_1573
hypothetical protein		6.9	Gmet_3496
arginyl-tRNA synthetase	argS	6.8	Gmet_1434
polysaccharide deacetylase domain protein		6.8	Gmet_0897
VacJ family lipoprotein fusion protein		6.8	Gmet_0995
helix-turn-helix transcriptional regulator, ArsR family		6.8	Gmet_0846
SpoU-class rRNA methyltransferase CspR		6.8	Gmet_2379
hypothetical protein		6.8	Gmet_0368
phospholipase, patatin family, putative		6.8	Gmet_0115
phosphonoacetate hydrolase	phnA	6.8	Gmet_0801
cytochrome c	cccA	6.8	Gmet_1094
transposase, IS110 family		6.8	Gmet_2565
tryptophanyl-tRNA synthetase	trpS	6.8	Gmet_1960
membrane protein, UPF0118 superfamily		6.8	Gmet_2050
biopolymer transport periplasmic beta-propeller repeat protein, TolB-related protein		6.8	Gmet_3540
ribulose-phosphate 3-epimerase	rpe	6.8	Gmet_0067
sensor histidine kinase response regulator		6.8	Gmet_1765
type IV pilus biogenesis ATPase PilM	pilM	6.8	Gmet_0971
hypothetical protein		6.8	Gmet_3596
SAM-dependent methyltransferase, putative		6.8	Gmet_2485
GTPase EngA	engA	6.8	Gmet_2314
NADH-dependent flavin oxidoreductase, Oye family		6.8	Gmet_0123
TPR domain protein		6.8	Gmet_0979
Glu/Leu/Phe/Val dehydrogenase superfamily protein		6.8	Gmet_1728
outer membrane lipoprotein LolB, putative		6.8	Gmet_3378
nucleotide cyclase, HAMP and GGDEF-related domain-containing		6.8	Gmet_1989
L-threonine-0-3-phosphate decarboxylase	cobD	6.8	Gmet_0487

menaquinol oxidoreductase complex Cbc3,				
cytochrome b subunit, putative	cbcW	6.8	Gmet_1923	
ribosome-associated peptidylprolyl cis-trans				
isomerase, FKBP-type (trigger factor)	tig	6.8	Gmet_1874	
CRISPR-associated integrase		6.8	Gmet_1068	
flagellar rod-binding protein FlgJ	flgJ	6.8	Gmet_0435	
flagellar basal body rod protein FlgC	flgC	6.8	Gmet_3114	
membrane protein, putative		6.8	Gmet_0225	
2-isopropylmalate synthase	leuA	6.8	Gmet_1265	
3,4-dihydroxy-2-butanone-4-phosphate				
synthase and GTP cyclohydrolase II	ribA	6.8	Gmet_1626	
ATP-dependent DNA helicase Rep	rep	6.8	Gmet_2724	
protein of unknown function DUF58		6.8	Gmet_1633	
protein of unknown function DUF1653		6.8	Gmet_1611	
lipoprotein, putative		6.8	Gmet_1990	
hypothetical protein		6.8	Gmet_0276	
sigma-54-dependent transcriptional response regulator		6.8	Gmet_1992	
glutamate 5-kinase	proB	6.8	Gmet_3198	
phenylalanyl-tRNA synthetase, alpha				
subunit	pheS	6.8	Gmet_1415	
phosphoribosylglycinamide				
formyltransferase, formate-dependent	purT	6.8	Gmet_3193	
4-alpha-glucanotransferase	malQ	6.8	Gmet_2391	
type IV pilus secretin lipoprotein PilQ	pilQ	6.8	Gmet_0975	
phosphotransferase system, mannose-type, protein IIA		6.8	Gmet_1287	
ABC transporter, ATP-binding protein		6.8	Gmet_1403	
toxin, RelE family		6.8	Gmet_0221	
NAD-dependent nucleoside diphosphate-sugar				
epimerase/dehydratase		6.8	Gmet_0823	
histidinol dehydrogenase	hisD	6.8	Gmet_0384	
metal-dependent phosphohydrolase, HDOD domain-containing		6.8	Gmet_0035	
glycosyltransferase		6.8	Gmet_1334	
hypothetical protein		6.8	Gmet_1231	
negative regulator of flagellin synthesis				
FlgM	flgM	6.8	Gmet_0436	
nitrogen fixation master sigma-54-dependent transcriptional response				
regulator	gnfM	6.8	Gmet_2563	
outer membrane channel, putative		6.8	Gmet_2438	
methyl-accepting chemotaxis sensory				
transducer, class 40+24H	mcp64H-2	6.8	Gmet_2478	
hypothetical protein		6.8	Gmet_2991	
hypothetical protein		6.8	Gmet_0830	
radical SAM domain iron-sulfur cluster-binding				
oxidoreductase		6.8	Gmet_0418	
peptidase, U32 family		6.8	Gmet_0040	

amino acid aminotransferase, putative		6.8	Gmet_3325
cell division protein, SpolID family, putative		6.8	Gmet_0850
LysM domain protein		6.8	Gmet_0889
isopropylmalate/citramalate isomerase, small subunit	leuD	6.8	Gmet_1269
protoheme IX farnesyltransferase	ctaB	6.8	Gmet_0253
type II restriction endonuclease, zinc finger		6.8	Gmet_1797
UDP-4-amino-4-deoxy-L-arabinose formyltransferase	arnG	6.8	Gmet_0884
rRNA methyltransferase, YqxC-related, putative		6.8	Gmet_1222
branched-chain 2-oxoacid dehydrogenase complex, E1 protein, beta subunit, putative	bkdB	6.8	Gmet_2510
adenosine-specific tRNA nucleotidyltransferase	ccaA	6.8	Gmet_1578
lipoprotein, putative		6.8	Gmet_0505
hypothetical protein		6.8	Gmet_1373
phosphatidate cytidylyltransferase	cdsA	6.8	Gmet_1255
ResC/HemX-like cytochrome c		6.8	Gmet_2900
ketose-1,6-bisphosphate aldolase, class II, putative		6.8	Gmet_2383
tRNA (5-carboxymethylaminomethyl-2- seleno-U34)-2-selenouridine synthase	selU	6.8	Gmet_2384
molybdate ABC transporter, ATP-binding protein	modC	6.8	Gmet_0514
cytochrome c	ppcE	6.8	Gmet_1846
helix-turn-helix transcriptional regulator, MerR family		6.8	Gmet_1724
membrane protein DedA		6.8	Gmet_0502
hypothetical protein		6.8	Gmet_0054
hypothetical protein		6.8	Gmet_1433
methionyl-tRNA synthetase	metG	6.8	Gmet_2321
bidirectional NAD-reducing hydrogenase, large subunit	hoxL	6.8	Gmet_1113
TPR domain protein		6.8	Gmet_1932
benzoysuccinyl-CoA thiolase subunit	bbsA	6.8	Gmet_1528
type II secretion system ATPase Pule	pule	6.8	Gmet_1864
aspartate carbamyltransferase	pyrB	6.7	Gmet_1769
hydrolase, putative	hpnK	6.7	Gmet_2415
pyruvate:ferredoxin/flavodoxin oxidoreductase	por	6.7	Gmet_3419
lipid A core-O antigen ligase-related protein		6.7	Gmet_2009
protein of unknown function YcbK	ycbK	6.7	Gmet_1751
ABC transporter, membrane protein of unknown function DUF140		6.7	Gmet_0788
sensor histidine kinase response receiver, 4HB_MCP_1 and GAF domain-containing		6.7	Gmet_2642
glyoxalate/3-oxopropanoate/4- oxobutanoate reductase	ghr	6.7	Gmet_3011
HPr(Ser) kinase/phosphatase	hprK	6.7	Gmet_1285

glycosyltransferase, YqgM-like family		6.7	Gmet_2001
DNA gyrase, B subunit	gyrB	6.7	Gmet_0004
glycosyltransferase, putative		6.7	Gmet_1329
lipoprotein, putative		6.7	Gmet_3394
lipoprotein, putative		6.7	Gmet_0561
peptidylprolyl cis-trans isomerase lipoprotein, FKBP-type		6.7	Gmet_2362
NAD-dependent nucleoside diphosphate-sugar epimerase/dehydratase	hpnA	6.7	Gmet_2821
DNA polymerase III, beta subunit	dnaN	6.7	Gmet_0002
cysteine synthase A	cysK-1	6.7	Gmet_2988
cyclic diguanylate phosphodiesterase		6.7	Gmet_2714
hypothetical protein		6.7	Gmet_1024
LysM domain lipoprotein		6.7	Gmet_1358
carbamyl-phosphate synthase, large subunit, glutamine-dependent	carB-1	6.7	Gmet_1774
sensor histidine kinase, PAS domain-containing		6.7	Gmet_0713
hypothetical protein		6.7	Gmet_0876
phosphopantothenylcysteine decarboxylase and phosphopantothenate--cysteine ligase	coaBC	6.7	Gmet_2673
trans-isoprenyl diphosphate synthase		6.7	Gmet_1935
ADP-heptose--lipopolysaccharide heptosyltransferase		6.7	Gmet_2881
phage tail protein, putative		6.7	Gmet_1129
ribonuclease P, protein component	rnpA	6.7	Gmet_3563
cytochrome c	pccF	6.7	Gmet_3088
thioredoxin family protein	trx-2	6.7	Gmet_0517
tRNA pseudouridine 55 synthase	truB	6.7	Gmet_1589
TPR-related repeat protein		6.7	Gmet_2765
type IV pilus minor pilin PilX	pilX-2	6.7	Gmet_0966
RES domain protein		6.7	Gmet_1661
metal-dependent hydrolase, beta-lactamase superfamily		6.7	Gmet_1944
ResC/HemX-like cytochrome c		6.7	Gmet_3232
nitric oxide reductase, cytochrome b	norZ	6.7	Gmet_3493
protein of unknown function YgbA		6.7	Gmet_3184
DNA replication and repair protein RecF	recF	6.7	Gmet_0003
5,10-methylenetetrahydrofolate reductase-associated protein		6.7	Gmet_1161
ATP-dependent RNA helicase RhlB	rhlB	6.7	Gmet_3035
hypothetical protein		6.7	Gmet_3019
ABC transporter, periplasmic substrate-binding lipoprotein		6.7	Gmet_0568
cytochrome c	sco	6.7	Gmet_0248
response receiver sensor histidine kinase		6.7	Gmet_2639
3-deoxy-D-manno-octulosonate-8-phosphate phosphatase	kdsC	6.7	Gmet_1279
methionyl-tRNA formyltransferase	fmt	6.7	Gmet_3339
antitoxin		6.7	Gmet_2602

hypothetical protein		6.7	Gmet_3656
flagellar hook protein FlgE	flgE	6.7	Gmet_3103
RNA-binding protein CsrA	csrA	6.7	Gmet_0440
recombinase A	recA	6.7	Gmet_0198
exopolysaccharide synthesis periplasmic protein I	epsI	6.7	Gmet_2002
zinc metalloendopeptidase, M23 family		6.7	Gmet_3012
polypeptide formylmethionine deformylase	def-1	6.7	Gmet_3338
6-carboxy-5,6,7,8-tetrahydropterin synthase	queD	6.7	Gmet_1657
oxidoreductase, aldo/keto reductase family		6.7	Gmet_1727
efflux pump, RND family, outer membrane protein		6.7	Gmet_1650
protein of unknown function DUF2892		6.7	Gmet_3124
NUDIX hydrolase, type 15		6.7	Gmet_0207
molybdopterin adenylyltransferase MoaB, putative	moaB	6.7	Gmet_1036
phosphoribosylformylglycinamide cyclo-ligase	purM	6.7	Gmet_1844
ABC transporter, ATP-binding protein		6.7	Gmet_1552
CRISPR-associated protein CasD	cas5d	6.7	Gmet_1065
23S rRNA pseudouridines 1911, 1915, 1917 synthase	rluD	6.7	Gmet_3435
prolipoprotein diacylglycerol transferase	lgt	6.7	Gmet_1227
peptide ABC transporter, periplasmic peptide-binding lipoprotein		6.7	Gmet_1234
flagellar protein FlbD	flbD	6.7	Gmet_0462
hypothetical protein		6.7	Gmet_0164
lipoprotein, putative		6.7	Gmet_1996
TPR domain lipoprotein		6.7	Gmet_3542
3-isopropylmalate/3-methylmalate dehydrogenase	leuB	6.7	Gmet_0602
UDP-N-acetylmuramyl-(pentapeptide)--undecaprenyl-phosphate N-acetylmuramyl-(pentapeptide)-phosphotransferase	mraY	6.7	Gmet_0409
ABC transporter, ATP-binding protein	ybhF-C1	6.7	Gmet_0657
pyruvate phosphate dikinase	ppdK	6.7	Gmet_2940
hypothetical protein		6.7	Gmet_0343
iron-sulfur cluster-binding sigma-54-dependent transcriptional regulator, FehydlgC and FeS domain-containing		6.7	Gmet_0055
hypothetical protein		6.7	Gmet_3168
membrane protein, putative		6.7	Gmet_1781
aspartyl-tRNA synthetase	aspS	6.7	Gmet_1357
flagellar motor switch protein FliM	fliM	6.7	Gmet_3100
twin-arginine translocation pathway protein TatB	tatB	6.7	Gmet_3543
conjugal transfer protein TrbL		6.7	Gmet_A3573

hypothetical protein		6.7	Gmet_1983
3-oxoacyl-(acyl carrier protein) synthase-related protein		6.7	Gmet_1696
protein of unknown function DUF393		6.7	Gmet_0181
periplasmic polysaccharide biosynthesis/export protein		6.7	Gmet_1345
2-C-methyl-D-erythritol-4-phosphate			
cytidylyltransferase	ispD	6.7	Gmet_0060
PDDEXK_3 family protein		6.7	Gmet_3252
ATP synthase-associated magnesium import			
membrane protein AtpI	atpI	6.7	Gmet_3358
4-hydroxybenzoyl-CoA reductase			
molybdenum cofactor biosynthesis protein,			
putative	pcmV	6.7	Gmet_2138
translation elongation factor Tu	tuf-2	6.7	Gmet_0611
pantetheine-phosphate adenylyltransferase	coaD	6.7	Gmet_1759
stalled replication fork rescue ATPase	rarA	6.7	Gmet_0939
hypothetical protein		6.7	Gmet_1795
ribonuclease HII	rnhB	6.7	Gmet_2865
nucleotidyltransferase DUF294, putative		6.7	Gmet_0738
GTPase-activating protein, putative		6.6	Gmet_0980
pyruvate dehydrogenase complex, E2			
protein, dihydrolipoamide acetyltransferase	aceF	6.6	Gmet_2752
ATP synthase-associated magnesium import			
membrane protein AtpZ	atpZ	6.6	Gmet_3357
menaquinol oxidoreductase complex ACIII,			
menaquinol-binding membrane protein			
subunit ActC	actC	6.6	Gmet_1812
outer membrane lipoprotein carrier/sorting protein LolA		6.6	Gmet_3207
1-deoxy-D-xylulose-5-phosphate			
reductoisomerase	dxr	6.6	Gmet_1256
scaffold protein CheW associated with	cheW40H-		
MCPs of class 40H	2	6.6	Gmet_2307
sensor histidine kinase, HAMP and PAS domain-containing		6.6	Gmet_1945
type II secretion system protein PulN,			
putative	pulN	6.6	Gmet_1862
hypothetical protein		6.6	Gmet_0898
RNA-binding protein YhbY	yhbY	6.6	Gmet_1764
SAM-dependent methyltransferase		6.6	Gmet_2876
response receiver-modulated cyclic diguanylate			
phosphodiesterase		6.6	Gmet_1919
NADH dehydrogenase I, A subunit	nuoA-2	6.6	Gmet_0152
phosphatidylethanolamine-binding protein		6.6	Gmet_1009
small-conductance mechanosensitive ion			
channel	mscS-1	6.6	Gmet_1942
hypothetical protein		6.6	Gmet_1514
hypothetical protein		6.6	Gmet_1095
galactosyltransferase/glucosyltransferase		6.6	Gmet_2334

futalosine hydrolase, putative	mqnB	6.6	Gmet_3381
radical SAM domain iron-sulfur cluster-binding oxidoreductase, TIGR01212 family	yhcC-2	6.6	Gmet_2936
type II secretion system protein GspD, putative	gspD	6.6	Gmet_3364
hypothetical protein		6.6	Gmet_2775
inosine-5'-monophosphate dehydrogenase	guAB	6.6	Gmet_2293
membrane protein, putative		6.6	Gmet_0515
hypothetical protein		6.6	Gmet_0542
biosynthetic peptidoglycan transglycosylase		6.6	Gmet_3403
ABC transporter, membrane protein		6.6	Gmet_2405
NACHT domain and WD40 repeat protein		6.6	Gmet_1213
hypothetical protein		6.6	Gmet_0452
hypothetical protein		6.6	Gmet_0859
GDP-mannose--undecaprenyl-phosphate mannosyltransferase, putative		6.6	Gmet_0589
NADH dehydrogenase I, N subunit	nuoN-2	6.6	Gmet_0172
antitoxin, AbrB family		6.6	Gmet_1339
NADH dehydrogenase I, I subunit	nuoL-2	6.6	Gmet_0163
UDP-galacturonate 4-epimerase	uge	6.6	Gmet_2330
hypothetical protein		6.6	Gmet_2967
endonuclease III-related DNA glycosidase, HhH-GPD superfamily		6.6	Gmet_1973
cytochrome c		6.6	Gmet_1866
dihydroorotate	pyrC	6.6	Gmet_1770
protein of unknown function, LysM, LysM and NLPC_P60 domain-containing		6.6	Gmet_1169
regulatory protein, CxxC_CxxC_SSSS domain-containing, putative		6.6	Gmet_1163
SEFIR domain protein		6.6	Gmet_1793
ABC transporter, ATP-binding protein		6.6	Gmet_3037
sensor histidine kinase, PAS, GAF and GAF domain-containing		6.6	Gmet_2956
glycosyltransferase		6.6	Gmet_1408
hypothetical protein		6.6	Gmet_1114
ResB-like family cytochrome c		6.6	Gmet_0572
transketolase, B protein	tkIB	6.6	Gmet_0552
transcriptional regulator, Fur family		6.6	Gmet_3240
4-hydroxy-3-methylbut-2-en-1-yl diphosphate reductase	ispH	6.6	Gmet_0866
aspartyl/glutamyl-tRNA(Asn/Gln)			
amidotransferase, B subunit	gatB	6.6	Gmet_0073
squalene cyclase	shc-2	6.6	Gmet_0419
acetyl-CoA carboxylase, carboxyl transferase, alpha subunit	accA	6.6	Gmet_1216
glycosyltransferase		6.6	Gmet_2878
DNA polymerase III, delta-prime subunit	holB	6.6	Gmet_2319

hypothetical protein		6.6	Gmet_3594
hypothetical protein		6.6	Gmet_1001
glycosyltransferase, putative		6.6	Gmet_1331
peptide methionine sulfoxide reductase, R-isomer-specific domain and S-isomer-specific domain-containing radical SAM domain iron-sulfur cluster-binding oxidoreductase, DUF3641-containing		6.6	Gmet_0222
ABC transporter, membrane protein of unknown function DUF140		6.6	Gmet_2457
ribosomal protein S12		6.6	Gmet_1271
methylthiotransferase	rimO	6.6	Gmet_3205
scaffold protein CheW associated with MCPs of classes 40H and 40+24H	cheW64H	6.6	Gmet_3265
hypothetical protein		6.6	Gmet_1147
ADP-ribose pyrophosphatase	nudF	6.6	Gmet_0048
NADH dehydrogenase I, J subunit	nuoJ-2	6.6	Gmet_0165
flagellar basal body rod protein FlgG	flgG	6.6	Gmet_0431
zinc protease TldD, putative modulator of DNA gyrase	tldD	6.6	Gmet_2720
D-lactate dehydrogenase, CCG domain pair-containing subunit, putative	larF	6.6	Gmet_3246
redox-active disulfide protein 2		6.6	Gmet_0518
misacylated tRNA(Pro) deacylase, YbaK/ProX family		6.6	Gmet_1509
type II secretion system ATPase PulM, putative	pulM	6.6	Gmet_1863
protein glutamate methyltransferase CheR associated with MCPs of class 40H	cheR40H-1	6.6	Gmet_2305
lipoprotein release ABC transporter, membrane protein	lolE-1	6.6	Gmet_2359
protein of unknown function, MJ0042_CXXC and DUF3426 domain-containing		6.6	Gmet_1032
ATP-binding protein, putative		6.6	Gmet_3062
glutamate-1-semialdehyde 2,1-aminomutase	hemL	6.6	Gmet_3356
hypothetical protein		6.6	Gmet_3004
NADPH-dependent glutamate synthase, glutamine amidotransferase subunit		6.6	Gmet_1753
hypothetical protein		6.5	Gmet_3089
lipoprotein release ABC transporter, membrane protein	lolE-2	6.5	Gmet_1517
SPOR domain protein		6.5	Gmet_1984
protein of unknown function DUF2201, VWFA superfamily		6.5	Gmet_0344
outer membrane surface lipoprotein		6.5	Gmet_3162
UDP-N-acetyl-D-galactosamine 6-dehydrogenase, putative	capL	6.5	Gmet_1994
carbamyl-phosphate synthase, small	carA	6.5	Gmet_1771

subunit				
zinc metalloendopeptidase, M23 family		6.5	Gmet_1559	
outer membrane channel		6.5	Gmet_1995	
protein of unknown function, DUF115 and TPR domain-containing		6.5	Gmet_0447	
membrane-bound transcriptional regulator, ribonuclease BN-related protein		6.5	Gmet_2779	
flagellar biogenesis protein FlIP	fliP	6.5	Gmet_3097	
cob(II)yrinate a,c-diamide synthase	cbiA	6.5	Gmet_0470	
winged helix-turn-helix transcriptional regulator, Rrf2 family		6.5	Gmet_1931	
2-C-methyl-D-erythritol 2,4-cyclodiphosphate synthase	ispF	6.5	Gmet_0059	
nuclease, putative		6.5	Gmet_2377	
hypothetical protein		6.5	Gmet_1402	
leucyl-tRNA synthetase	leuS	6.5	Gmet_2300	
methyl-accepting chemotaxis sensory transducer, class 40+24H	mcp64H-1	6.5	Gmet_2938	
hypothetical protein		6.5	Gmet_3633	
glycine cleavage system P protein, subunit 1	gcvP1	6.5	Gmet_3153	
MgtC family protein		6.5	Gmet_1981	
cobalt-precorrin-4 C11-methyltransferase	cbiF	6.5	Gmet_0483	
hypothetical protein		6.5	Gmet_2670	
hypothetical protein		6.5	Gmet_1144	
glucose-1-phosphate thymidylyltransferase	rmlA	6.5	Gmet_0924	
ATPase, AAA family		6.5	Gmet_1336	
prephenate dehydrogenase	tyrA	6.5	Gmet_0863	
cell shape-determining protein MreC	mreC	6.5	Gmet_0926	
zinc-dependent peptidase, M16 family		6.5	Gmet_2529	
hypothetical protein		6.5	Gmet_1831	
helix-turn-helix transcriptional response regulator, AraC family		6.5	Gmet_2157	
polypeptide formylmethionine deformylase	def-2	6.5	Gmet_3553	
tRNA pseudouridines 38,39,40 synthase	truA	6.5	Gmet_0605	
efflux pump, RND family, inner membrane protein		6.5	Gmet_2518	
phenylalanyl-tRNA synthetase, beta subunit	pheT	6.5	Gmet_1416	
protein of unknown function DUF185		6.5	Gmet_3084	
CBS domain pair-containing protein		6.5	Gmet_1882	
pentapeptide repeat protein		6.5	Gmet_3227	
hypothetical protein		6.5	Gmet_1834	
protein of unknown function DUF480		6.5	Gmet_0262	
metal-dependent hydrolase, subgroup D		6.5	Gmet_1645	
polysaccharide deacetylase and DUF3473 domain protein		6.5	Gmet_2005	
heme-binding sensor globin domain protein		6.5	Gmet_0338	
cytochrome c	omcO	6.5	Gmet_0558	
PhoH-related ATPase		6.5	Gmet_1302	

lipoprotein, putative		6.5	Gmet_0322
phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase	hisA	6.5	Gmet_0388
ACT domain protein		6.5	Gmet_1824
amidohydrolase, putative		6.5	Gmet_2056
hypothetical protein		6.5	Gmet_1742
protein disulfide bond isomerase, DsbC/DsbG-like protein		6.5	Gmet_1150
hypothetical protein		6.5	Gmet_A3576
antitoxin, XRE family		6.5	Gmet_0315
protein of unknown function, DUF302-containing		6.5	Gmet_3125
NADH dehydrogenase I, G subunit	nuoG-2	6.5	Gmet_0159
sigma-54-dependent transcriptional response regulator PilR	pilR	6.5	Gmet_1397
hypothetical protein		6.5	Gmet_2801
manganese/nickel-dependent phosphodiesterase, YfcE family		6.5	Gmet_1749
efflux pump, RND family, outer membrane protein		6.5	Gmet_1376
glycosyltransferase		6.5	Gmet_2879
outer membrane channel, putative		6.5	Gmet_0532
membrane protein, putative		6.5	Gmet_2877
biopolymer transport membrane protein, TolR-related protein		6.5	Gmet_3538
membrane-bound O-acyltransferase, putative		6.5	Gmet_2338
ribonuclease PH	rph	6.5	Gmet_1876
chromosome segregation and condensation protein ScpA	scpA	6.5	Gmet_1959
nitrogen regulatory protein P-II	glnB	6.5	Gmet_1351
hypothetical protein		6.5	Gmet_3189
type IV pilus minor pilin PilV	pilV-2	6.5	Gmet_0964
protein kinase, ABC1 domain-containing, putative		6.5	Gmet_1519
hypothetical protein		6.5	Gmet_1450
cobalt-precorrin-5B C1-methyltransferase	cbiD	6.5	Gmet_0478
S-adenosylmethionine--tRNA ribosyltransferase-isomerase	queA	6.5	Gmet_0851
hypothetical protein		6.5	Gmet_0214
glycosyltransferase		6.5	Gmet_1328
hypothetical protein		6.5	Gmet_1008
membrane protein, DoxD family, putative		6.5	Gmet_0230
peptidylprolyl cis-trans isomerase, cyclophilin-type 3-deoxy-D-manno-octulosonate		6.4	Gmet_2722
cytidylyltransferase	kdsB	6.4	Gmet_1275
nicotinate/nicotinamide mononucleotide adenylyltransferase	nadD	6.4	Gmet_3200
efflux pump, RND family, outer membrane protein		6.4	Gmet_2517
hypothetical protein		6.4	Gmet_3120

response regulator		6.4	Gmet_1378
phosphoribosyl-ATP pyrophosphohydrolase	hisE	6.4	Gmet_0390
cyclic diguanylate phosphodiesterase, DUF3365 and HAMP domain-containing, heme-binding		6.4	Gmet_0018
D-sedoheptulose-7-phosphate isomerase	gmhA	6.4	Gmet_0920
UDP-2-acetamido-2-deoxy-alpha-D-ribo-hexopyranos-3-ulose 3-aminotransferase	gnnB	6.4	Gmet_2351
type IV pilus minor pilin PilV	pilV-1	6.4	Gmet_0734
cobalt/zinc/iron/cadmium/nickel efflux protein	dmeF	6.4	Gmet_3071
cobalt-precorrin-6B C5,C15-methyltransferase and C12-decarboxylase	cbiET	6.4	Gmet_0481
sensor helix-turn-helix transcriptional regulator, LuxR family		6.4	Gmet_1513
protein of unknown function DUF208		6.4	Gmet_0752
hypothetical protein		6.4	Gmet_3032
UDP-N-2, O-3-di-(3-hydroxyacyl)glucosamine/UDP-N-2, N-3-di-(3-hydroxyacyl)glucosidamine pyrophosphatase	lpxH	6.4	Gmet_2776
DNA adenine N6-methyltransferase		6.4	Gmet_3140
lytic transglycosylase domain protein		6.4	Gmet_1377
aerobic-type carbon monoxide dehydrogenase, small subunit-like protein		6.4	Gmet_0838
ResC/HemX-like cytochrome c		6.4	Gmet_0594
iron-sulfur cluster-binding protein, putative	baml	6.4	Gmet_2079
alpha-glucan phosphorylase		6.4	Gmet_3159
response receiver-modulated diguanylate cyclase		6.4	Gmet_0069
2-dehydropantoate 2-reductase	panE	6.4	Gmet_2643
translation elongation factor G	fusA-2	6.4	Gmet_2521
membrane protein, AraJ family		6.4	Gmet_1663
undecaprenyl diphosphate synthase	uppS	6.4	Gmet_1254
misacylated tRNA(Pro) deacylase, YbaK/ProX family		6.4	Gmet_0396
zinc-dependent peptidase, M16 family		6.4	Gmet_2530
respiratory nitrate reductase, cytochrome c	narC-2	6.4	Gmet_1019
hypothetical protein		6.4	Gmet_1997
type II secretion system pseudopilin PulG	pulG	6.4	Gmet_1858
cardiolipin synthase, putative	cls-2	6.4	Gmet_0065
membrane protein, putative		6.4	Gmet_1401
efflux pump, RND family, membrane fusion protein	ybhG-1	6.4	Gmet_0659
hypothetical protein		6.4	Gmet_1612
hypothetical protein		6.4	Gmet_3458
pyridoxal-5'-phosphate-dependent decarboxylase		6.4	Gmet_1644
phosphoesterase, putative		6.4	Gmet_1588
sensor histidine kinase, GAF domain-containing		6.4	Gmet_2748
sodium/solute symporter family protein	aplA	6.4	Gmet_0739

respiratory nitrate reductase, cytochrome b gamma subunit	narL-1	6.4	Gmet_0332
succinyl:acetate coenzyme A transferase		6.4	Gmet_1125
disulfide bond formation oxidoreductase			
DsbB	dsbB	6.4	Gmet_1381
molybdopterin-binding iron-sulfur cluster-binding oxidoreductase MopB-3		6.4	Gmet_2738
integrase/recombinase XerD	xerD	6.4	Gmet_1427
branched-chain amino acid aminotransferase	ilvE	6.4	Gmet_2853
radical SAM domain iron-sulfur cluster-binding oxidoreductase		6.4	Gmet_0124
pyrimidine operon regulator and uracil phosphoribosyltransferase PyrR	pyrR	6.4	Gmet_1768
hypothetical protein		6.4	Gmet_3629
2-oxoacid:ferredoxin oxidoreductase, thiamin diphosphate-binding subunit	vorB	6.4	Gmet_1308
peptidylprolyl cis-trans isomerase, putative antitoxin, XRE family		6.4	Gmet_0917
electron transfer flavoprotein, beta subunit	etfB-1	6.4	Gmet_0317
lipoprotein, putative		6.4	Gmet_0683
hypothetical protein		6.4	Gmet_2627
aldehyde dehydrogenase family 11 protein		6.4	Gmet_2969
pantoate--beta-alanine ligase	panC	6.4	Gmet_0789
cobalt-precorrin-5A hydrolase	cbiG	6.4	Gmet_1643
hypothetical protein		6.4	Gmet_0484
TIM alpha/beta-barrel protein		6.4	Gmet_0402
hypothetical protein		6.4	Gmet_3029
membrane protein, putative		6.4	Gmet_3579
response receiver		6.4	Gmet_1970
biotin-dependent acyl-CoA carboxylase, carboxyltransferase subunit		6.4	Gmet_2789
aerobic-type carbon monoxide dehydrogenase, large subunit-like protein		6.4	Gmet_3248
NAD-dependent nucleoside diphosphate-sugar epimerase/dehydratase		6.4	Gmet_3489
phosphoribosylaminoimidazole carboxylase-related protein		6.4	Gmet_1338
lipoprotein, putative		6.4	Gmet_0193
flagellar operon protein of unknown function DUF3766		6.4	Gmet_3588
CARDB domain lipoprotein, putative		6.4	Gmet_3104
menaquinol oxidoreductase complex Cbc4, cytochrome b subunit, putative	cbcU-1	6.4	Gmet_1998
flagellar filament cap protein FlID	fliD	6.4	Gmet_3520
hypothetical protein		6.4	Gmet_0444
molybdopterin sulfurtransferase MOSC domain protein	mosC-1	6.4	Gmet_1003
		6.4	Gmet_0302

pantothenate kinase, type III	coaX	6.4	Gmet_1986
single-stranded DNA-specific exonuclease			
RecJ	recJ	6.4	Gmet_0857
peptidyl-tRNA hydrolase-related protein		6.4	Gmet_2976
hypothetical protein		6.4	Gmet_1341
prolidase family protein		6.4	Gmet_0982
FtsK/SpoIIIE domain protein		6.4	Gmet_0367
protein of unknown function DUF342		6.4	Gmet_3025
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		6.4	Gmet_1772
hypothetical protein		6.4	Gmet_3592
hypothetical protein		6.4	Gmet_0176
arabinose-5-phosphate isomerase	kdsD	6.4	Gmet_1278
transaldolase		6.4	Gmet_0497
hypothetical protein		6.4	Gmet_2535
UDP-4-amino-4-deoxy-L-arabinose--			
oxoglutarate aminotransferase	arnB	6.4	Gmet_0886
membrane protein, TerC family		6.4	Gmet_1782
glutamate racemase	murl	6.4	Gmet_0547
RNA methyltransferase, TrmA family		6.4	Gmet_1971
23S rRNA (2-N-methyl-G2445)-			
methyltransferase, putative	rImL	6.4	Gmet_0398
lipoprotein, putative		6.4	Gmet_3525
ABC transporter, membrane protein		6.3	Gmet_2406
isoleucyl-tRNA synthetase	ileS	6.3	Gmet_0351
anthranilate synthase, glutamine			
amidotransferase subunit	trpG	6.3	Gmet_2496
glycosyltransferase, putative		6.3	Gmet_1332
nitrilase/amidohydrolase superfamily protein, class 8		6.3	Gmet_2863
protein of unknown function, DUF2276-containing		6.3	Gmet_2394
octaprenyl diphosphate synthase	ispB	6.3	Gmet_2455
peptide chain release factor 3	prfC	6.3	Gmet_0192
adenosine kinase		6.3	Gmet_2683
homoserine dehydrogenase	hom	6.3	Gmet_1629
cytochrome c		6.3	Gmet_0600
hypothetical protein		6.3	Gmet_3054
outer membrane protein assembly			
lipoprotein YfiO, putative	yfiO	6.3	Gmet_3014
dioxygenase, putative		6.3	Gmet_2446
menaquinol oxidoreductase complex Cbc4,			
iron-sulfur cluster-binding subunit, putative	cbcT-1	6.3	Gmet_3519
divalent manganese/zinc ABC transporter, ATP-binding			
protein		6.3	Gmet_0492
sensor diguanylate cyclase, GAF domain-containing		6.3	Gmet_2721
7-carboxy-7-deazaguanine synthase	queE	6.3	Gmet_1658
hypothetical protein		6.3	Gmet_0208

cyclic diguanylate phosphodiesterase		6.3	Gmet_2417
response receiver sensor histidine kinase, PAS domain-containing		6.3	Gmet_0010
protein of unknown function DUF2325		6.3	Gmet_2832
lipoprotein, putative		6.3	Gmet_0143
protein of unknown function DUF86		6.3	Gmet_0480
phosphoglycerate mutase 1	gpmA	6.3	Gmet_1653
exodeoxyribonuclease VII, small subunit	xseB	6.3	Gmet_1936
valyl-tRNA synthetase	valS	6.3	Gmet_0956
peptidylprolyl cis-trans isomerase, PpiC-type		6.3	Gmet_1817
hypothetical protein		6.3	Gmet_1049
universal stress protein Usp	usp-1	6.3	Gmet_3028
ABC transporter, membrane protein, ABC-2 family		6.3	Gmet_1406
GIY-YIG domain nuclease, putative		6.3	Gmet_1438
aconitate hydratase 1	acnA	6.3	Gmet_1016
23S rRNA (3-N-methyl-pseudoU1915)-methyltransferase, putative	rImH	6.3	Gmet_3202
hypothetical protein		6.3	Gmet_3002
membrane protein of unknown function DUF1003		6.3	Gmet_1203
glyoxalase/bleomycin resistance protein/dioxygenase superfamily protein		6.3	Gmet_2450
SAM-dependent methyltransferase, putative		6.3	Gmet_1390
type IV pilus assembly lipoprotein PilP	pilP	6.3	Gmet_0974
transcriptional regulator with cupin-like beta-barrel domain, putative		6.3	Gmet_3247
hypothetical protein		6.3	Gmet_0665
menaquinol oxidoreductase complex Cbc4, cytochrome c subunit	cbcS-1	6.3	Gmet_3518
transketolase	tkt	6.3	Gmet_0178
toxin, PIN family		6.3	Gmet_3076
undecaprenyl-phosphate glycosyltransferase, putative		6.3	Gmet_1686
tryptophan synthase, alpha subunit	trpA	6.3	Gmet_2477
hypothetical protein		6.3	Gmet_2343
ResB-like family cytochrome c glycosyltransferase		6.3	Gmet_0562
peptide chain release factor		6.3	Gmet_2342
methyltransferase	hemK	6.3	Gmet_0381
dihydropteroate synthase	folP	6.3	Gmet_1889
toxin, RelE family		6.3	Gmet_0677
type IV pilus inner membrane protein PilC	pilC	6.3	Gmet_1395
cell shape-determining protein MreB	mreB	6.3	Gmet_0918
ABC transporter, membrane protein		6.3	Gmet_0524
helix-turn-helix transcriptional regulator, IclR family		6.3	Gmet_0370
type IV pilus minor pilin PilX	pilX-1	6.3	Gmet_0736
rhomboid-related membrane protein		6.3	Gmet_1151
phosphatase/phosphohexomutase-related hydrolase		6.3	Gmet_1348

hypothetical protein		6.3	Gmet_2895
membrane protein, major facilitator superfamily		6.3	Gmet_0257
hypothetical protein		6.3	Gmet_2787
cytochrome p460, contains 1 heme-binding site		6.3	Gmet_2626
alanyl-tRNA synthetase	alaS	6.3	Gmet_0201
tRNA dihydrouridine synthase-like flavin		6.3	Gmet_0258
mononucleotide-binding domain protein		6.3	Gmet_1617
lipoprotein, putative			
nitrogen regulatory protein P-II			
uridylyltransferase, GlnD	glnD	6.3	Gmet_1426
toxin, RelE family		6.3	Gmet_2533
sensor histidine kinase, PAS domain-containing		6.3	Gmet_1212
zinc metalloendopeptidase, M23 family		6.3	Gmet_1350
hypothetical protein		6.3	Gmet_3646
nucleotide/nucleic acid-binding septum			
formation-inhibiting protein	maf	6.3	Gmet_0895
malonyl-CoA--acyl carrier protein			
transacylase	fabD-1	6.3	Gmet_1691
HAD superfamily hydrolase		6.3	Gmet_1000
protein glutamate methyltransferase CheB			
associated with MCPs of classes 40H and			
40+24H, response receiver domain-			
containing	cheB64H-1	6.3	Gmet_3269
sensor histidine kinase, PAS domain-containing		6.3	Gmet_3455
periplasmic divalent manganese/zinc-			
binding lipoprotein	acdA	6.3	Gmet_0491
type IV pilus assembly protein PilY1	pilY1-1	6.3	Gmet_0737
protein of unknown function DUF28		6.3	Gmet_0743
metal-dependent hydrolase, beta-lactamase superfamily		6.3	Gmet_0366
protein of unknown function DUF188		6.3	Gmet_1725
laccase family multicopper oxidase		6.3	Gmet_3434
5-methyltetrahydrofolate--homocysteine S-			
methyltransferase, cobalamin-dependent	metH	6.3	Gmet_0549
efflux pump, RND family, outer membrane protein		6.3	Gmet_3129
cytochrome c	dhc2	6.3	Gmet_0543
twitching motility pilus retraction ATPase	pilT-3	6.3	Gmet_3400
ADP-heptose--lipopolysaccharide heptosyltransferase		6.3	Gmet_2331
hypothetical protein		6.3	Gmet_3059
HEAT-like repeat-containing protein		6.3	Gmet_3274
nucleoside diphosphate-sugar dehydratase, putative		6.2	Gmet_0925
hypothetical protein		6.2	Gmet_2551
flagellar biogenesis protein FliO	fliO	6.2	Gmet_3098
DNA polymerase III, delta subunit	holA	6.2	Gmet_2298
cyclic diguanylate phosphodiesterase		6.2	Gmet_3275
sugar fermentation stimulation protein	sfsA	6.2	Gmet_1127
helix-turn-helix transcriptional regulator, LysR family		6.2	Gmet_1684

6-phosphofructokinase, ATP-dependent	pfk-2	6.2	Gmet_0938
D-glycero-D-mannoheptose-7-phosphate kinase and D-glycero-D-mannoheptose-1-phosphate adenylyltransferase	hldE	6.2	Gmet_0922
cytochrome c		6.2	Gmet_0571
aminopeptidase, putative		6.2	Gmet_1720
glutamine--fructose-6-phosphate aminotransferase	glmS-1	6.2	Gmet_0104
type II secretion system protein Pulp,		6.2	Gmet_1860
putative	pulp		
xanthosine/inosine triphosphate pyrophosphohydrolase	rdgB	6.2	Gmet_1875
menaquinol oxidoreductase complex ACIII, cytochrome c subunit ActA	actA	6.2	Gmet_1809
hypothetical protein		6.2	Gmet_0449
pyruvate carboxylase	pyc	6.2	Gmet_0816
hypothetical protein		6.2	Gmet_0261
flagellar motor switch protein FliN	fliN	6.2	Gmet_3099
protein of unknown function DUF721		6.2	Gmet_2875
tRNA (5-methyl-U54)-methylenetransferase/reductase	trmFO	6.2	Gmet_0893
BioD and DRTGG domain protein		6.2	Gmet_1616
menaquinol oxidoreductase complex ACIII, molybdopterin-binding-like subunit ActB1	actB1	6.2	Gmet_1810
N-(5'-phosphoribosyl)anthranilate isomerase	trpF	6.2	Gmet_2492
NUDIX hydrolase, coenzyme A pyrophosphatase family transcriptional regulator, TetR family		6.2	Gmet_0265
cobalt ABC transporter, membrane protein CbiM	cbiM	6.2	Gmet_1731
ResB-like family cytochrome c		6.2	Gmet_0472
rhomboid-related membrane protein		6.2	Gmet_0592
hypothetical protein		6.2	Gmet_2385
helix-turn-helix transcriptional regulator, LysR family		6.2	Gmet_2337
FlgM family protein		6.2	Gmet_0530
motility response receiver histidine kinase		6.2	Gmet_2286
YbbR domain protein		6.2	Gmet_0202
PASTA-related domain protein		6.2	Gmet_1887
efflux pump, RND family, membrane fusion lipoprotein		6.2	Gmet_1196
lipoprotein, putative		6.2	Gmet_2519
membrane protein, putative		6.2	Gmet_0574
serine phosphatase		6.2	Gmet_1273
signal recognition particle GTPase FtsY	ftsY	6.2	Gmet_2062
pentapeptide repeat protein		6.2	Gmet_1176
sensor histidine kinase, HAMP and PAS domain-containing		6.2	Gmet_1851
carbon starvation protein CstA	cstA-2	6.2	Gmet_0777
		6.2	Gmet_2696

antitoxin, AbrB family		6.2	Gmet_2502
HAD superfamily hydrolase		6.2	Gmet_0226
efflux pump, RND family, membrane fusion protein		6.2	Gmet_1665
efflux pump, RND family, inner membrane protein		6.2	Gmet_3127
glutamate--ammonia ligase			
adenylyltransferase	glnE	6.2	Gmet_0071
hypothetical protein		6.2	Gmet_3137
helix-turn-helix transcriptional regulator, GntR family		6.2	Gmet_1121
cytochrome c	coxC	6.2	Gmet_0250
glycerol-3-phosphate dehydrogenase, FAD-dependent	glpA	6.2	Gmet_1677
flavodoxin, putative		6.2	Gmet_1815
sodium/solute symporter, GAF and PP2C family protein			
serine/threonine phosphatase domain protein		6.2	Gmet_1230
hypothetical protein		6.2	Gmet_3602
cytochrome c		6.2	Gmet_1867
DNA methyltransferase, putative		6.2	Gmet_0676
cytidine-specific tRNA nucleotidyltransferase	ccnC	6.2	Gmet_2285
molybdopterin-binding domain			
nicotinamide nucleotide amidohydrolase, putative	cinA	6.2	Gmet_0196
amino acid aminotransferase, putative		6.2	Gmet_3433
acyl-CoA thioesterase		6.2	Gmet_2669
phage tail spike protein, putative		6.2	Gmet_1138
type IV pilus biogenesis protein PilN	pilN	6.2	Gmet_0972
sigma-54-dependent transcriptional regulator		6.2	Gmet_3308
membrane protein, major facilitator superfamily		6.2	Gmet_3221
glycosyltransferase, putative		6.2	Gmet_2336
branched-chain amino acid ABC transporter, periplasmic amino acid-binding protein, putative	livK	6.2	Gmet_1823
hypothetical protein		6.2	Gmet_1330
hypothetical protein		6.2	Gmet_2449
glyoxalase/bleomycin resistance protein/dioxygenase superfamily protein		6.2	Gmet_3328
menaquinone biosynthesis methyltransferase, putative		6.2	Gmet_1167
hypothetical protein		6.2	Gmet_2777
GTP cyclohydrolase I	folE	6.2	Gmet_3074
dTDP-4-dehydro-6-deoxyglucose aminotransferase		6.2	Gmet_2332
sensor histidine kinase of FgrL, PAS domain-containing	fgrK	6.2	Gmet_0011
integration host factor, beta subunit	ihfB-1	6.2	Gmet_1833
single-strand-binding protein	ssb	6.2	Gmet_0362
LysM domain protein		6.2	Gmet_0860
integration host factor subunit, alpha subunit	ihfA-3	6.2	Gmet_3057

dTDP-4-dehydrorhamnose reductase	rmlD	6.2	Gmet_2472
succinyl-CoA synthetase, beta subunit	sucC-1	6.2	Gmet_0729
sigma-54-dependent transcriptional response regulator		6.2	Gmet_0702
metal-dependent hydrolase, beta-lactamase superfamily		6.2	Gmet_1030
radical SAM domain iron-sulfur cluster-binding oxidoreductase		6.2	Gmet_1246
protein of unknown function DUF2320		6.2	Gmet_1445
hypothetical protein		6.2	Gmet_3513
flagellar biogenesis protein FlhB	flhB	6.2	Gmet_3094
acetyltransferase, putative		6.2	Gmet_0224
citramalate synthase	cimA	6.2	Gmet_1879
membrane protein, putative		6.2	Gmet_0715
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		6.2	Gmet_1690
antitoxin, XRE family		6.2	Gmet_2961
type VI secretion system needle sheath			
protein TssC	tssC	6.1	Gmet_0279
winged helix transcriptional response regulator		6.1	Gmet_0688
hypothetical protein		6.1	Gmet_1916
nucleoside triphosphate			
pyrophosphohydrolase MazG	mazG	6.1	Gmet_2399
amino acid aminotransferase, putative		6.1	Gmet_0732
glycine cleavage system T protein	gcvT	6.1	Gmet_3155
lipoprotein cytochrome c	omcl	6.1	Gmet_1744
hypothetical protein		6.1	Gmet_0716
peptidoglycan transpeptidase	mrdA	6.1	Gmet_0928
hypothetical protein		6.1	Gmet_0175
ADP-ribosylglycohydrolase-related protein		6.1	Gmet_3377
stationary phase survival protein, YicC family, YicC_N and DUF1732 domain-containing	yicC	6.1	Gmet_2328
D-aminoacyl-tRNA deacylase	dtd	6.1	Gmet_3008
primosomal protein N', ATP-dependent helicase	priA	6.1	Gmet_3337
recombination regulator RecX	recX	6.1	Gmet_0200
hypothetical protein		6.1	Gmet_3064
protein phosphoaspartate phosphatase CheX associated with MCPs of classes 40H and 40+24H	cheX64H	6.1	Gmet_3118
iron/zinc/nickel/cobalt/cadmium efflux protein	fieF	6.1	Gmet_0858
membrane protein, putative		6.1	Gmet_1967
GTP-binding protein Era	era	6.1	Gmet_2315
quinolinate phosphoribosyltransferase, decarboxylating	nadC	6.1	Gmet_1988
membrane protein, UPF0126 and UPF0126 domain-containing		6.1	Gmet_0254

nicotinate phosphoribosyltransferase		6.1	Gmet_2373
hypothetical protein		6.1	Gmet_2609
sigma-54-dependent transcriptional response regulator		6.1	Gmet_3158
aminopeptidase, M42 family		6.1	Gmet_2294
O-acetyl-ADP-ribose deacetylase	ymdB	6.1	Gmet_3007
threonine and serine dehydratase and			
deaminase, catabolic	tdcB	6.1	Gmet_3072
chorismate mutase and prephenate			
dehydratase	pheA	6.1	Gmet_0862
cytochrome c		6.1	Gmet_1868
hypothetical protein		6.1	Gmet_3058
endonuclease III-related protein	nth	6.1	Gmet_0070
outer membrane channel, putative		6.1	Gmet_1193
hydrolase, putative, cyclic phosphodiesterase-like			
domain-containing		6.1	Gmet_2946
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		6.1	Gmet_2734
hypothetical protein		6.1	Gmet_0703
anthranilate phosphoribosyltransferase	trpD	6.1	Gmet_2495
ADP-heptose--lipopolysaccharide heptosyltransferase		6.1	Gmet_2341
Kef-type potassium transporter, NAD-binding protein		6.1	Gmet_1105
helix-turn-helix transcriptional regulator, ArsR family		6.1	Gmet_0522
chromosome segregation and condensation			
protein ScpB	scpB	6.1	Gmet_1958
hypothetical protein		6.1	Gmet_3060
heterodisulfide oxidoreductase, FAD-			
binding and iron-sulfur cluster-binding			
subunit A	hdrA	6.1	Gmet_3426
NAD+ synthetase	nadE	6.1	Gmet_2862
protein kinase, ArgK family, putative		6.1	Gmet_1576
tRNA (5-carboxymethylaminomethyl-2-thio-			
U34) synthesis sulfur carrier protein	tusA-2	6.1	Gmet_3454
dehypoxanthinylfutalosine cyclase, putative	mqnC-2	6.1	Gmet_3391
cytosine/adenosine deaminase		6.1	Gmet_0239
protein of unknown function, DUF1250-containing		6.1	Gmet_3051
protein of unknown function DUF1638		6.1	Gmet_2749
membrane protein of unknown function DUF360		6.1	Gmet_3555
flagellar basal body rod protein FlgF	flgF	6.1	Gmet_0430
type II secretion system ATPase GspE	gspE	6.1	Gmet_3365
3-dehydroquinate dehydratase, type II	aroQ	6.1	Gmet_0981
ribosomal protein S18 alanine N-			
acetyltransferase	rimI	6.1	Gmet_1843
cytochrome c	coxD	6.1	Gmet_0251
peptidoglycan L,D-transpeptidase, YkuD family, LysM			
domain-containing		6.1	Gmet_2463
ResC/HemX-like cytochrome c		6.1	Gmet_0573
NUDIX hydrolase		6.1	Gmet_3309

cell division ATP-binding protein FtsE	ftsE	6.1	Gmet_1856
chromosome segregation ATPase SMC		6.1	Gmet_1174
adenosylcobinamide kinase and			
adenosylcobinamide phosphate			
guanylyltransferase	cobU	6.1	Gmet_0466
ABC transporter, ATP-binding protein		6.1	Gmet_1743
flagellar biogenesis master response			
receiver sensor histidine kinase	fgrL	6.1	Gmet_0012
LysM domain protein		6.1	Gmet_3226
potassium-transporting ATPase, C subunit	kdpC	6.1	Gmet_2435
winged-helix transcriptional response regulator		6.1	Gmet_1291
sensor protein serine/threonine phosphatase, PP2C			
family, PAS and PAS domain-containing		6.1	Gmet_2115
hypothetical protein		6.1	Gmet_1660
ABC transporter, membrane protein	ybhR-1	6.1	Gmet_0655
sensor histidine kinase		6.1	Gmet_1379
PEP motif-containing protein, putative exosortase			
substrate		6.1	Gmet_2512
protein of unknown function DUF116		6.1	Gmet_3340
peptide ABC transporter, membrane protein		6.1	Gmet_1236
V-type proton-translocating			
pyrophosphatase	hppA	6.1	Gmet_3239
hypothetical protein		6.1	Gmet_1173
hypothetical protein		6.1	Gmet_0356
ferredoxin-dependent glutamate synthase	gltS	6.1	Gmet_0147
acyl-CoA thioesterase		6.1	Gmet_1672
acetyl-CoA carboxylase, carboxyl			
transferase, beta subunit	accD	6.1	Gmet_2476
ROK domain transcriptional regulator/sugar kinase		6.1	Gmet_1639
cytochrome c		6.1	Gmet_2301
pyridoxal-5'-phosphate-dependent chorismate-binding			
enzyme, putative		6.1	Gmet_3010
cytoplasmic membrane protein FxsA	fxsA	6.1	Gmet_0772
periplasmic polysaccharide biosynthesis/export protein		6.1	Gmet_1344
TPR domain protein		6.0	Gmet_2945
3-deoxy-D-arabino-heptulosonate 7-			
phosphate synthase	aroG-2	6.0	Gmet_0346
hypothetical protein		6.0	Gmet_1093
type IV pilus minor pilin FimU	fimU	6.0	Gmet_0963
toxin, PIN family		6.0	Gmet_1340
polyphosphate-dependent ADP kinase		6.0	Gmet_1092
sensor histidine kinase CheA associated			
with MCPs of class 40H	cheA40H	6.0	Gmet_2311
acyl-(acyl carrier protein) ligase, acyl carrier, [acyl-			
]glycerolphosphate acyltransferase fusion protein		6.0	Gmet_1613
short-chain acyl-CoA dehydrogenase		6.0	Gmet_1715
protein of unknown function DUF101		6.0	Gmet_1615

cysteine synthase A	cysK-2	6.0	Gmet_1558
recombination protein RecR	recR	6.0	Gmet_3420
sigma-54-dependent transcriptional response regulator		6.0	Gmet_2453
protein of unknown function DUF2721		6.0	Gmet_0709
hypothetical protein		6.0	Gmet_0817
hypothetical protein		6.0	Gmet_2653
response regulator		6.0	Gmet_3117
hypothetical protein		6.0	Gmet_2632
PilB/PuIE/GspE family ATPase		6.0	Gmet_0861
phosphoglycerate kinase	pgk	6.0	Gmet_1947
SEC-C motif domain protein		6.0	Gmet_0722
cytochrome c		6.0	Gmet_2896
hypothetical protein		6.0	Gmet_1968
CRISPR-associated endodeoxyribonuclease			
Cas1	cas1	6.0	Gmet_1072
enoyl-CoA hydratase/isomerase		6.0	Gmet_1572
winged-helix transcriptional response regulator		6.0	Gmet_1026
ribonuclease Z-related hydrolase		6.0	Gmet_0188
protein of unknown function DUF150		6.0	Gmet_1583
hypothetical protein		6.0	Gmet_0425
FliK domain protein		6.0	Gmet_3160
type VI secretion system needle sheath			
protein TssB	tssB	6.0	Gmet_0278
deoxyguanosine triphosphate triphosphohydrolase, putative		6.0	Gmet_1762
methylthioadenosine phosphorylase	mtaP	6.0	Gmet_2684
proline dehydrogenase and Delta-1-			
pyrroline-5-carboxylate dehydrogenase	putA	6.0	Gmet_3512
threonine synthase	thrC	6.0	Gmet_1631
oxygen-independent coproporphyrinogen			
III oxidase	hemN	6.0	Gmet_3535
thioredoxin domain protein		6.0	Gmet_2652
hypothetical protein		6.0	Gmet_2891
membrane protein, putative		6.0	Gmet_2456
hypothetical protein		6.0	Gmet_1214
hypothetical protein		6.0	Gmet_2719
ABC transporter, ATP-binding protein		6.0	Gmet_2630
helix-turn-helix transcriptional regulator, MerR family,			
PTSIIA domain-containing		6.0	Gmet_2604
guanosine-5'-monophosphate synthase	guaA	6.0	Gmet_2292
transcriptional regulator, TetR family		6.0	Gmet_2645
membrane protein DUF445, putative		6.0	Gmet_0227
RNA pseudouridine synthase, RluA family		6.0	Gmet_2838
type II secretion system minor pseudopilin			
Gspl	gspl	6.0	Gmet_3369
type IV pilus minor pilin PilW	pilW-2	6.0	Gmet_0965

nucleoid maintenance ATPase YjeE	yjeE	6.0	Gmet_1881
malate oxidoreductase, NADP-dependent, phosphate acetyltransferase-like domain-containing	maeB	6.0	Gmet_1637
flagellin-stabilizing protein FliW	fliW	6.0	Gmet_0441
2-oxoacid:ferredoxin oxidoreductase, alpha subunit	vorA	6.0	Gmet_1307
hypothetical protein		6.0	Gmet_0146
twin-arginine translocation pathway protein, TatA/TatE family	fdnT	6.0	Gmet_1063
carbamyl-phosphate synthetase, carbamate kinase-like protein	cpkA	6.0	Gmet_2786
hypothetical protein		6.0	Gmet_0082
protein glutamate methyl esterase CheB	cheB-7	6.0	Gmet_2640
thymidylate kinase	tmk-1	6.0	Gmet_2318
response receiver scaffold protein CheV	cheV	6.0	Gmet_2739
twin-arginine translocation pathway protein TatC	tatC	6.0	Gmet_1387
HAD superfamily hydrolase		6.0	Gmet_2814
germane superfamily protein		6.0	Gmet_0548
acyltransferase, putative		6.0	Gmet_1688
hypothetical protein		6.0	Gmet_1816
hydrolase or acyltransferase, alpha/beta fold family		6.0	Gmet_0726
peptide ABC transporter, ATP-binding protein		6.0	Gmet_0848
UDP-glucose/UDP-N-acetylglucosamine 4-epimerase	galE-1	6.0	Gmet_2329
lipoprotein, putative		6.0	Gmet_0210
cobalt ABC transporter, membrane protein			
CbiQ	cbiQ	6.0	Gmet_0474
transpeptidase		6.0	Gmet_2778
7-cyano-7-deazaguanine synthase	queC	6.0	Gmet_3075
cobalt ABC transporter, ATP-binding protein	cbiO	6.0	Gmet_0475
nicotinamidase-related cysteine hydrolase		6.0	Gmet_2952
heavy metal transport/detoxification domain protein		6.0	Gmet_1556
cobalt-sirohydrochlorin C20-methyltransferase	cbiL	6.0	Gmet_0482
FAD-dependent oxidoreductase, putative		6.0	Gmet_2676
transcriptional regulator, Crp/Fnr family	fnr-1	6.0	Gmet_0092
lipid A disaccharide synthase	lpxB	6.0	Gmet_2350
nucleic acid-independent polyadenylating polymerase	pcnB	6.0	Gmet_3182
sensor histidine kinase, PAS and PAS domain-containing		6.0	Gmet_0666
hypothetical protein		6.0	Gmet_0820
winged-helix heavy metal transcriptional response regulator	czcR	6.0	Gmet_0528
efflux pump, RND family, outer membrane protein		6.0	Gmet_3465
ABC transporter, periplasmic substrate-binding protein		6.0	Gmet_2771

CRISPR-associated nuclease and helicase					
Cas3	cas3	6.0	Gmet_1064		
HAD superfamily hydrolase		5.9	Gmet_0937		
cytochrome c	coxA	5.9	Gmet_0249		
cation-translocating P-type ATPase		5.9	Gmet_1614		
hypothetical protein		5.9	Gmet_0218		
ferredoxin, putative		5.9	Gmet_3652		
acyl-CoA synthetase, AMP-forming		5.9	Gmet_1469		
23S rRNA (2'-O-methyl-G2251)-methyltransferase	rImB	5.9	Gmet_1356		
flagellar biogenesis chaperone FlgN	flgN	5.9	Gmet_0437		
alanine dehydrogenase	ald	5.9	Gmet_1099		
glycogen phosphorylase	glgP	5.9	Gmet_0940		
hypothetical protein		5.9	Gmet_0921		
WHy domain lipoprotein		5.9	Gmet_2480		
response receiver sensor histidine kinase		5.9	Gmet_2790		
archaeal DEXX-box ATPase with DUF234		5.9	Gmet_2667		
ATP-dependent RNA helicase RhIE	rhIE-2	5.9	Gmet_2573		
adenosylcobalamin-5'-phosphate phosphatase, putative	cobC	5.9	Gmet_0469		
DNA polymerase I	polA	5.9	Gmet_2983		
flagellum-specific ATPase Flil	flil	5.9	Gmet_3109		
response regulator		5.9	Gmet_3472		
hypothetical protein		5.9	Gmet_0365		
type II secretion system protein GspN, putative	gspN	5.9	Gmet_3374		
nucleic acid-binding protein, putative		5.9	Gmet_3050		
GspIIEN domain protein		5.9	Gmet_0111		
serine hydroxymethyltransferase	glyA	5.9	Gmet_1605		
hypothetical protein		5.9	Gmet_2490		
mannose-1-phosphate guanylyltransferase		5.9	Gmet_1104		
16S rRNA (5-methyl-C967)-methyltransferase	rsmB	5.9	Gmet_0066		
dTDP-glucose 4,6-dehydratase	rmlB	5.9	Gmet_2473		
antitoxin, Phd family		5.9	Gmet_0220		
hypothetical protein		5.9	Gmet_2968		
hypothetical protein		5.9	Gmet_0364		
hypothetical protein		5.9	Gmet_1452		
exporter, putative		5.9	Gmet_1699		
glucose-6-phosphate isomerase	pgi	5.9	Gmet_2458		
ABC transporter, substrate-binding protein		5.9	Gmet_0996		
hypothetical protein		5.9	Gmet_3640		
protein tyrosine kinase		5.9	Gmet_1447		
N-acetylmuramyl-L-alanine amidase		5.9	Gmet_1425		
shikimate 5-dehydrogenase	aroE	5.9	Gmet_1392		
phospholipid/lipopolysaccharide-flipping	msbA	5.9	Gmet_2349		

ABC transporter MsbA		
poly-gamma-glutamate capsule biosynthesis protein, putative		5.9 Gmet_3529
hypothetical protein		5.9 Gmet_2162
phosphoenolpyruvate carboxylase		5.9 Gmet_0304
carboxymuconolactone decarboxylase family protein		5.9 Gmet_2646
D-isomer-specific 2-hydroxyacid dehydrogenase, NAD-binding protein		5.9 Gmet_0106
6-phosphofructokinase	pfk-1	5.9 Gmet_1640
hypothetical protein		5.9 Gmet_2966
hypothetical protein		5.9 Gmet_1146
transcriptional regulator, TetR family		5.9 Gmet_3466
diaminopimelate decarboxylase	lysA	5.9 Gmet_0219
membrane protein of unknown function DUF395, YeeE/YedE-related protein		5.9 Gmet_3453
acyl-phosphate--glycerol-3-phosphate acyltransferase	plsY	5.9 Gmet_3020
protease, S2P-M50-like family 1		5.9 Gmet_1961
Ech-hydrogenase-related complex, NuoH-like integral membrane subunit	ehrB-1	5.9 Gmet_2600
radical SAM domain iron-sulfur cluster-binding oxidoreductase, TIGR01212 family	yhcC-1	5.9 Gmet_3163
flagellar export protein FliJ	fliJ	5.9 Gmet_3108
transcriptional regulator, TetR family		5.9 Gmet_1520
membrane protein DUF318		5.9 Gmet_0563
2-[hydroxy(phenyl)methyl]-succinyl-CoA dehydrogenase subunit	bbsD	5.9 Gmet_1531
hypothetical protein		5.9 Gmet_1240
membrane protein, putative		5.9 Gmet_2414
periplasmic substrate-binding histidine kinase		5.9 Gmet_2788
hypothetical protein		5.9 Gmet_0131
hypothetical protein		5.9 Gmet_0318
16S rRNA (7-methyl-G527)-methyltransferase	gidB	5.9 Gmet_3558
protein of unknown function DUF485		5.9 Gmet_0740
3-oxoacyl-(acyl carrier protein) synthase II	fabF-1	5.9 Gmet_1695
ABC transporter, membrane protein		5.9 Gmet_0998
undecaprenyl-diphospho-oligosaccharide flippase		5.9 Gmet_1490
efflux pump, RND family, inner membrane protein		5.9 Gmet_1664
glycosyltransferase and SAM-dependent methyltransferase, putative		5.9 Gmet_0456
flagellar basal body stator protein MotB	motB	5.9 Gmet_0460
flagellar basal body P-ring formation protein FlgA	flgA	5.9 Gmet_0432
hypothetical protein		5.9 Gmet_0686
1-deoxy-D-xylulose-5-phosphate synthase	dxs-2	5.9 Gmet_1934
tRNA (5-carboxymethylaminomethyl-U34)-gidA		5.9 Gmet_3559

formylglycinetransferase/reductase			
lipoprotein, putative		5.9	Gmet_0289
outer membrane channel, putative		5.9	Gmet_2624
outer membrane channel, putative		5.9	Gmet_1194
exoribonuclease R	rnr	5.9	Gmet_1386
tRNA (N7-methyl-G46)-methyltransferase	trmB	5.9	Gmet_3034
indole-3-glycerol-phosphate synthase	trpC	5.9	Gmet_2494
DTW domain protein		5.9	Gmet_0179
flagellar biogenesis protein FlhF	flhF	5.9	Gmet_0427
SMR domain protein		5.9	Gmet_1296
endonuclease, TnsA family		5.9	Gmet_3046
ATPase DUF815, putative		5.9	Gmet_2571
hypothetical protein		5.9	Gmet_1370
transposition ATP-binding protein TniB		5.9	Gmet_3048
transporter membrane protein of unknown function DUF140		5.9	Gmet_2543
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		5.9	Gmet_1693
lipoprotein of unknown function DUF3443		5.9	Gmet_1674
sensor histidine kinase, HAMP and PAS domain-containing		5.9	Gmet_0009
hypothetical protein		5.9	Gmet_1098
carbohydrate kinase, PfkB family		5.9	Gmet_2812
dihydroorotate dehydrogenase, electron transfer subunit	pyrK	5.9	Gmet_1842
radical SAM domain iron-sulfur cluster-binding oxidoreductase		5.9	Gmet_1687
response regulator		5.9	Gmet_0955
protein of unknown function YibQ	yibQ	5.9	Gmet_1850
McbC-like oxidoreductase for polypeptide thioester cyclization		5.9	Gmet_0818
mobilization protein MobB, putative		5.9	Gmet_A3575
hypothetical protein		5.9	Gmet_2916
VWFA superfamily protein		5.9	Gmet_1536
multidrug resistance efflux pump, RND family, inner membrane protein EmrB		5.9	Gmet_1374
cytosolic peptidylprolyl cis-trans isomerase, cyclophilin A-like protein	ppiA	5.9	Gmet_0137
diguanylate cyclase		5.9	Gmet_2425
protein of unknown function YceG	yceG	5.9	Gmet_3021
histidinol-phosphate phosphatase, putative	hisN	5.8	Gmet_0697
transcription-repair coupling factor	mfd	5.8	Gmet_3547
cyclic diguanylate phosphodiesterase		5.8	Gmet_2817
response receiver histidine kinase		5.8	Gmet_0875
16S rRNA (6-N',N'-dimethyl-A1518,A1519)-dimethyltransferase	rsmA	5.8	Gmet_1304
ABC transporter, ATP-binding protein		5.8	Gmet_2479

adenylosuccinate lyase		purB	5.8	Gmet_1943
zinc-dependent hydrolase			5.8	Gmet_2141
protein of unknown function DUF2400			5.8	Gmet_3009
protein of unknown function DUF86			5.8	Gmet_1314
hypothetical protein			5.8	Gmet_3139
protein of unknown function DUF1255			5.8	Gmet_1778
NAD-dependent nucleoside diphosphate-sugar epimerase/dehydratase			5.8	Gmet_1335
hypothetical protein			5.8	Gmet_3061
cytochrome c	omcP		5.8	Gmet_0557
sensor histidine kinase			5.8	Gmet_3432
NADPH-dependent glutamate synthase, iron-sulfur cluster-binding and FMN-binding subunit			5.8	Gmet_1756
23S rRNA pseudouridine 2605 synthase	rluB		5.8	Gmet_1217
metallophosphoesterase			5.8	Gmet_2651
membrane protein, UPF0016 and UPF0016 domain-containing			5.8	Gmet_1157
helix-turn-helix and zinc ribbon transcriptional regulator			5.8	Gmet_0240
enoyl-(acyl carrier protein) reductase	fabI		5.8	Gmet_2558
periplasmic energy transduction protein, TonB-related protein			5.8	Gmet_3539
SAM-dependent methyltransferase, putative			5.8	Gmet_0453
diadenylate cyclase, YbbR and YbbR domain-containing			5.8	Gmet_1168
GDP-mannose--undecaprenyl-phosphate mannosyltransferase			5.8	Gmet_1870
tRNA (2-thio-C32)-thioltransferase	ttcA		5.8	Gmet_3336
ResC/HemX-like cytochrome c			5.8	Gmet_0141
methylmalonyl-CoA epimerase	mceE		5.8	Gmet_3253
metal-dependent hydrolase, beta-lactamase superfamily			5.8	Gmet_0765
electron transfer flavoprotein, beta subunit	etfB-7		5.8	Gmet_1713
antitoxin, Phd family			5.8	Gmet_0678
sensor histidine kinase			5.8	Gmet_0687
winged helix-turn-helix transcriptional regulator, Rrf2 family			5.8	Gmet_1907
redox-active protein, C_GCAxxG_C_C family, putative			5.8	Gmet_1801
hypothetical protein			5.8	Gmet_0565
indolepyruvate:ferredoxin oxidoreductase, alpha subunit	iorA-1		5.8	Gmet_1827
hypothetical protein			5.8	Gmet_1135
competence protein, ComEC-related, putative			5.8	Gmet_1915
transcription elongation factor GreB	greB		5.8	Gmet_1103
ATP-dependent Clp protease, proteolytic subunit ClpP	clpP		5.8	Gmet_1873
phenylacetate--coenzyme A ligase	paaK-3		5.8	Gmet_0950
hypothetical protein			5.8	Gmet_1140
aromatic catabolism-like sigma-54-dependent transcriptional regulator, XylR and V4R domain-			5.8	Gmet_1542

containing			
flavodoxin, putative		5.8	Gmet_1106
response receiver-modulated nucleotide cyclase, GGDEF-related domain-containing		5.8	Gmet_0945
winged helix-turn-helix transcriptional regulator, MarR family		5.8	Gmet_1895
16S rRNA (2'-O-methyl-C1402)-methyltransferase	rsml	5.8	Gmet_2861
molybdopterin sulfurtransferase MOSC domain protein	mosC-2	5.8	Gmet_2094
hypothetical protein		5.8	Gmet_1785
TPR domain protein		5.8	Gmet_0588
type II secretion system inner membrane protein GspF	gspF	5.8	Gmet_3366
hypothetical protein		5.8	Gmet_3107
hypothetical protein		5.8	Gmet_3093
efflux pump, RND family, inner membrane protein, AcrB/AcrD/AcrF family		5.8	Gmet_1652
acetate transporter AcpA family protein		5.8	Gmet_1126
membrane protein YeaQ		5.8	Gmet_1208
heterodisulfide oxidoreductase, NAD(P)H oxidoreductase subunit F	hdrF	5.8	Gmet_3431
diadenylate cyclase		5.8	Gmet_1888
TPR domain lipoprotein		5.8	Gmet_1506
peptide methionine sulfoxide reductase, S-isomer-specific	msrA	5.8	Gmet_0268
hypothetical protein		5.8	Gmet_3063
4-hydroxybenzoyl-CoA reductase			
flavoprotein subunit	pcmR	5.8	Gmet_2134
hypothetical protein		5.8	Gmet_2668
hypothetical protein		5.8	Gmet_0675
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain and TPR domain		5.8	Gmet_1171
hypothetical protein		5.8	Gmet_0105
helix-turn-helix transcriptional regulator, LexA-related protein		5.8	Gmet_0130
phosphate acetyltransferase	pta	5.8	Gmet_1035
peptidase, M1 superfamily, putative		5.8	Gmet_0348
branched-chain amino acid ABC transporter, ATP-binding protein	livF	5.8	Gmet_1819
ATPase, AAA family		5.8	Gmet_1133
histone deacetylase family protein		5.8	Gmet_1739
lipoprotein, putative		5.8	Gmet_1152
translation-regulating membrane GTPase			
TypA	typA	5.8	Gmet_3013
response regulator, PilZ domain-containing		5.8	Gmet_3220

SAM-dependent methyltransferase, PUA domain-containing		5.8	Gmet_0845
hypothetical protein		5.8	Gmet_2920
zinc protease PmbA, putative		5.8	Gmet_0947
ADP-heptose--lipopolysaccharide heptosyltransferase, putative		5.8	Gmet_1410
dihydroorotate dehydrogenase	pyrD	5.8	Gmet_1841
L,L-diaminopimelate aminotransferase	dapL	5.8	Gmet_0213
RNA polymerase sigma-28 factor for flagellar operon	fliA	5.8	Gmet_0429
cytochrome c		5.8	Gmet_0576
helix-turn-helix transcriptional regulator PuuR, cupin domain-containing lipoprotein, putative	puuR	5.8	Gmet_0901
helix-turn-helix transcriptional regulator, XRE family outer membrane surface protein		5.7	Gmet_2491
ComEA-related DNA-binding/uptake protein hypothetical protein		5.7	Gmet_2808
hydrolase or acyltransferase, alpha/beta fold family UDP-glucose--undecaprenyl-phosphate glucosyltransferase		5.7	Gmet_1878
radical SAM domain iron-sulfur cluster-binding oxidoreductase membrane protein, putative		5.7	Gmet_1500
L-seryl-tRNA(Sec) selenium transferase hypothetical protein	selA	5.7	Gmet_1468
outer membrane channel, putative seryl-tRNA synthetase	serS	5.7	Gmet_0242
2-amino-4-hydroxy-6-hydroxymethylidihydropteridine pyrophosphokinase	folK	5.7	Gmet_2316
protein of unknown function DUF1858		5.7	Gmet_2977
argininosuccinate lyase	argH	5.7	Gmet_0061
1,4-dihydroxy-6-naphthoate synthase	mqnD	5.7	Gmet_1385
hypothetical protein carboxythiazole phosphate tautomer synthase	thiG	5.7	Gmet_2831
membrane protein of unknown function DUF401		5.7	Gmet_3528
alanine racemase	alr	5.7	Gmet_2459
ATP-binding protein YjeF	yjeF	5.7	Gmet_2934
hypothetical protein protein glutamate methylesterase CheB associated with MCPs of class 40H,		5.7	Gmet_2554
response receiver domain-containing osmosensitive potassium channel sensor histidine kinase KdpD, KdpD and USP_OKCHK domain-containing	cheB40H-2 kdpD	5.7	Gmet_2908
		5.7	Gmet_1883
		5.7	Gmet_A3571
		5.7	Gmet_2711
		5.7	Gmet_2436

flagellar biogenesis protein FliR	fliR	5.7	Gmet_3095
lipoprotein release ABC transporter, ATP-binding protein	lold-2	5.7	Gmet_1518
ABC transporter, ATP-binding protein		5.7	Gmet_1899
metal-dependent hydrolase, beta-lactamase superfamily II		5.7	Gmet_3123
ATPase, AAA_5 family		5.7	Gmet_0021
4-hydroxybenzoyl-CoA reductase iron-sulfur cluster-binding subunit, putative	pcmS	5.7	Gmet_2135
helix-turn-helix transcriptional regulator, XRE family		5.7	Gmet_0970
SAM-dependent methyltransferase, putative		5.7	Gmet_0721
protein serine/threonine kinase	rdoA	5.7	Gmet_0246
maltooligosyltrehalose trehalohydrolase, putative	treZ	5.7	Gmet_3467
nicotinamidase		5.7	Gmet_2374
hypothetical protein		5.7	Gmet_0083
glycosyltransferase, putative		5.7	Gmet_1497
multidrug resistance efflux pump, RND family, membrane fusion protein EmrA		5.7	Gmet_1375
bidirectional NAD-reducing hydrogenase, diaphorase subunit	hoxU	5.7	Gmet_1111
iron-sulfur cluster-binding oxidoreductase		5.7	Gmet_3185
hypothetical protein		5.7	Gmet_2113
chaperonin Hsp33	hslO	5.7	Gmet_0041
UDP-glucose--lipopolysaccharide core heptose I 4-beta-glucosyltransferase		5.7	Gmet_2344
SAM-dependent methyltransferase, putative		5.7	Gmet_0795
methylisocitrate lyase	prpB	5.7	Gmet_1122
cytochrome c/b	cbcY	5.7	Gmet_0100
membrane-associated zinc metalloprotease			
RseP	rseP	5.7	Gmet_1257
type II secretion system minor pseudopilin			
GspJ	gspJ	5.7	Gmet_3370
DNA polymerase II, putative		5.7	Gmet_3187
UDP-3-O-(3-hydroxyacyl)-N-acetylglucosamine/UDP- 3-N-(3-hydroxyacyl)-2-N-acetylglucosaminidase			
deacetylase	lpxC	5.7	Gmet_2607
hypothetical protein		5.7	Gmet_1409
phenylacetate--coenzyme A ligase	paaK-1	5.7	Gmet_1818
hypothetical protein		5.7	Gmet_2963
scaffold protein CheW associated with MCPs of class 34H	cheW34H	5.7	Gmet_2421
electron transfer flavoprotein-associated cytochrome b and CCG domain pair iron-sulfur cluster-binding oxidoreductase		5.7	Gmet_1714
acyl-CoA thioesterase		5.7	Gmet_1692

transcriptional regulator, Crp/Fnr family	fnr-2	5.7	Gmet_0750
hypothetical protein		5.7	Gmet_0303
type IV pilus minor pilin PilW	pilW-1	5.7	Gmet_0735
phosphoglycosyl-diphosphate--polypropenyl- phosphate			
phosphoglycosyltransferase, putative		5.7	Gmet_1405
ribonuclease III	rnc	5.7	Gmet_2317
NADPH-dependent glutamate synthase, iron-sulfur			
cluster-binding subunit		5.7	Gmet_1755
acyl carrier protein 4'-			
phosphopantetheinyltransferase	acpS	5.7	Gmet_1884
orotidine-5'-phosphate decarboxylase	pyrF	5.7	Gmet_1355
transcriptional repressor of ribonucleotide			
reductase, NrdR, zinc ribbon and ATP-cone			
domain-containing	nrdR	5.7	Gmet_1623
undecaprenyl-phosphate glycosylphosphotransferase		5.7	Gmet_1337
Ech-hydrogenase-related complex, small			
subunit	ehrS-1	5.7	Gmet_2596
serine protease, subtilase family		5.7	Gmet_1195
respiratory nitrate reductase, cytochrome b			
gamma subunit	narI-2	5.7	Gmet_1022
hydrogenase expression/formation protein			
HypD	hypD	5.7	Gmet_0117
phosphate ABC transporter, ATP-binding			
protein	pstB	5.7	Gmet_2704
winged-helix transcriptional response			
regulator KdpE	kdpE	5.7	Gmet_2437
lipopolysaccharide ABC transporter,			
membrane protein LptG	lptG	5.7	Gmet_1248
metal-dependent phosphohydrolase, HDOD domain-			
containing		5.7	Gmet_0944
serine protease, subtilase family		5.7	Gmet_0751
amidohydrolase, YcaC-related protein		5.7	Gmet_2564
glycosyltransferase		5.7	Gmet_1499
sensor histidine kinase		5.7	Gmet_2454
glycerol kinase	glpK	5.7	Gmet_1676
aspartyl/glutamyl-tRNA(Asn/Gln)			
amidotransferase, A subunit	gatA	5.7	Gmet_0075
flagellar P-ring protein FlgI	flgI	5.7	Gmet_0434
ribonuclease Z-related hydrolase		5.7	Gmet_0724
cobalamin-binding protein kinase (ArgK) (R)-			
methylmalonyl-CoA mutase fusion		5.7	Gmet_1722
uronate isomerase, putative		5.7	Gmet_0451
exopolysaccharide synthesis membrane			
protein H (exosortase)	epsH	5.7	Gmet_2003
HNH endonuclease family protein		5.7	Gmet_0936
TIM barrel oxidoreductase NifR3	nifR3	5.7	Gmet_2561
hydrogenase maturation protein HypF	hypF	5.7	Gmet_0119

multicopper oxidase, putative		5.7	Gmet_2583
SAM-dependent methyltransferase		5.7	Gmet_2572
(R)-benzylsuccinate synthase, alpha subunit	bssA	5.7	Gmet_1539
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-3	5.7	Gmet_3087
nucleotidyltransferase DUF294, putative		5.7	Gmet_3030
cystathionine gamma-synthase/beta-lyase	metC-2	5.7	Gmet_0699
PEP motif-containing protein, putative exosortase substrate		5.6	Gmet_2584
type VI secretion system protein TssK	tssK	5.6	Gmet_3311
cytochrome c	ccdA-2	5.6	Gmet_1384
mannose-6-phosphate isomerase, putative hypothetical protein		5.6	Gmet_2471
lipoprotein, putative		5.6	Gmet_0215
proton/nitrate symporter	narK	5.6	Gmet_0333
nitrogen regulatory protein P-II	glnK	5.6	Gmet_0694
membrane protein, major facilitator superfamily		5.6	Gmet_0806
CBS domain pair protein of unknown function, DRTGG and DHHA2 domain-containing hypothetical protein		5.6	Gmet_0503
ATP-dependent DNA helicase DinG	dinG	5.6	Gmet_3167
membrane protein, putative		5.6	Gmet_1404
acetate--coenzyme A ligase	acsA	5.6	Gmet_2340
cell shape-determining protein MreD, putative	mreD	5.6	Gmet_0927
sodium-driven efflux pump, MatE and MatE domain-containing		5.6	Gmet_0358
integration host factor, alpha subunit	ihfA-4	5.6	Gmet_3056
undecaprenyl diphosphate phosphatase, putative tRNA (2'O-methyl-C32/U32)-methyltransferase		5.6	Gmet_0690
hypothetical protein	trmJ	5.6	Gmet_1369
hypothetical protein		5.6	Gmet_0590
methylated DNA--protein cysteine S-methyltransferase	ogt	5.6	Gmet_0559
tRNA (N6-threonylcarbamyl-A37) modification enzyme	ygjD	5.6	Gmet_1303
anthranilate synthase, catalytic subunit	trpE	5.6	Gmet_2497
nickel ABC transporter, membrane protein NikMN	nikMN	5.6	Gmet_2441
ribonuclease D, putative		5.6	Gmet_3389
ligand-gated TonB-dependent outer membrane channel protein of unknown function DUF1858		5.6	Gmet_2735
polypropenyl-phospho-glycoside--protein O-glycosyltransferase DUF2723 membrane protein, putative		5.6	Gmet_1776
spermine/spermidine synthase-related protein		5.6	Gmet_1391
		5.6	Gmet_0583

hypothetical protein		5.6	Gmet_1476
hypothetical protein		5.6	Gmet_0869
type II secretion system protein GspL, putative	gspL	5.6	Gmet_3372
benzoyl-CoA reductase, putative	bamB-2	5.6	Gmet_1802
isopropylmalate/citramalate isomerase, large subunit	leuC	5.6	Gmet_1268
helix-turn-helix transcriptional regulator, IclR family		5.6	Gmet_0741
hypothetical protein		5.6	Gmet_3584
hypothetical protein		5.6	Gmet_1610
HEAT-like repeat-containing protein		5.6	Gmet_3276
glycosyltransferase		5.6	Gmet_2740
DNA polymerase III, alpha subunit	dnaE	5.6	Gmet_1215
hypothetical protein		5.6	Gmet_0125
iron-sulfur cluster-binding oxidoreductase		5.6	Gmet_0567
protein of unknown function YaeQ	yaeQ	5.6	Gmet_1726
response receiver CheY associated with MCPs of class 40H	cheY40H-1	5.6	Gmet_2312
protein glutamate methyltransferase CheB associated with MCPs of class 40H,			
response receiver domain-containing	cheB40H-1	5.6	Gmet_2304
DNA topoisomerase I	topA	5.6	Gmet_0891
flagellar basal body stator protein MotA	motA	5.6	Gmet_0461
cytochrome c		5.6	Gmet_2898
sigma-54-dependent transcriptional response regulator		5.6	Gmet_1058
oxidoreductase, putative		5.6	Gmet_0450
hypothetical protein		5.6	Gmet_3116
folylpolyglutamate synthetase	folC	5.6	Gmet_2475
hypothetical protein		5.6	Gmet_1501
sensor sigma-54-dependent transcriptional regulator, GAF and GAF domain-containing		5.6	Gmet_0763
SAM-dependent methyltransferase, putative		5.6	Gmet_2791
cupin superfamily barrel domain protein		5.6	Gmet_0691
ankyrin repeat protein		5.6	Gmet_0582
protein of unknown function DUF3124		5.6	Gmet_0269
histidine triad (HIT) family hydrolase		5.6	Gmet_2993
hypothetical protein		5.6	Gmet_3181
phosphoenolpyruvate carboxykinase, ATP-dependent		5.6	Gmet_3169
translation elongation factor P	efp-1	5.6	Gmet_0099
peptidase, S49 family		5.6	Gmet_1750
ATP-dependent DNA helicase RecG	recG	5.6	Gmet_1777
hypothetical protein		5.6	Gmet_0943
sensor cyclic diguanylate phosphodiesterase, HAMP and GAF domain-containing, putative heme-binding site		5.6	Gmet_0849
protein of unknown function DUF4154		5.6	Gmet_1668
(R)-methylmalonyl-CoA mutase, isobutyryl-CoA mutase-		5.6	Gmet_3251

like catalytic subunit				
sensor histidine kinase		5.6	Gmet_1292	
(R)-2-hydroxyacyl-CoA dehydratase		5.6	Gmet_0545	
zinc-dependent hydrolase YcbL	ycbL	5.6	Gmet_2674	
hypothetical protein		5.6	Gmet_3068	
tRNA (5-methoxy-U34)-methyltransferase	cmoB	5.6	Gmet_2531	
undecaprenyl-phosphate glycosyltransferase, DPM1-like family		5.6	Gmet_2892	
peptide ABC transporter, membrane protein		5.6	Gmet_1235	
5-methyltetrahydrofolate--homocysteine S-methyltransferase and 5,10-methylenetetrahydrofolate reductase	metF-2	5.6	Gmet_0504	
nucleoside 3'/5'-monophosphate phosphatase and short-chain exopolyphosphatase SurE	surE	5.6	Gmet_1419	
ABC transporter, ATP-binding protein		5.6	Gmet_2545	
biotin synthase	bioB	5.6	Gmet_1582	
peptidase, U32 family		5.6	Gmet_0888	
hypothetical protein		5.6	Gmet_2996	
heterodisulfide oxidoreductase, iron-sulfur cluster-binding subunit E	hdrE	5.6	Gmet_3430	
metal-dependent phosphohydrolase, HDOD domain-containing		5.6	Gmet_0464	
ABC transporter, ATP-binding protein		5.6	Gmet_0523	
TPR domain protein		5.6	Gmet_0584	
transposase of ISGme7, IS3 family, OrfA		5.6	Gmet_1184	
dethiobiotin synthetase	bioD	5.6	Gmet_1581	
acyl-CoA--carboxylate coenzyme A transferase and acetyltransferase, GNAT family		5.6	Gmet_2142	
phosphoribosyl-AMP cyclohydrolase	hisI	5.6	Gmet_1897	
hydrolase or acyltransferase, alpha/beta fold family		5.6	Gmet_3398	
cysteine synthase B	cysM	5.6	Gmet_0264	
lytic transglycosylase domain protein		5.6	Gmet_3262	
cytochrome c		5.6	Gmet_1703	
hypothetical protein		5.6	Gmet_2380	
transcriptional repressor, LexA family	lexA	5.5	Gmet_1439	
glycosyltransferase		5.5	Gmet_1327	
tRNA (5-oxyacetic acid-U34)-carboxyltransferase/methyltransferase	cmoA	5.5	Gmet_2532	
periplasmically oriented, membrane-bound [NiFe]-hydrogenase, large subunit	hyaL	5.5	Gmet_3331	
flagellar L-ring lipoprotein FlgH	flgH	5.5	Gmet_0433	
shikimate kinase	aroK	5.5	Gmet_0977	
arginine decarboxylase, biosynthetic type	speA	5.5	Gmet_0904	
flavoredoxin		5.5	Gmet_0805	
lipopolysaccharide biogenesis outer membrane protein LptD, putative	lptD	5.5	Gmet_2474	

stress-responsive alpha/beta-barrel domain protein, Dabb family		5.5	Gmet_0507
lipoprotein, putative		5.5	Gmet_0742
protein of unknown function DUF190		5.5	Gmet_3017
metal-dependent phosphohydrolase, HDOD domain-containing		5.5	Gmet_3268
hypothetical protein		5.5	Gmet_0591
transcriptional regulator, TetR family		5.5	Gmet_0803
hypothetical protein		5.5	Gmet_3621
3-phosphoshikimate 1-carboxyvinyltransferase	aroA	5.5	Gmet_0864
hypothetical protein		5.5	Gmet_1557
uracil-DNA glycosylase		5.5	Gmet_2671
hypothetical protein		5.5	Gmet_3580
deoxycytidylate deaminase		5.5	Gmet_1622
integrase core domain protein		5.5	Gmet_3047
NAD-dependent protein deacetylase, Sir2 family	srtN	5.5	Gmet_0397
hypothetical protein		5.5	Gmet_2089
acyl-CoA--carboxylate coenzyme A transferase, beta subunit, putative		5.5	Gmet_1708
rhodanese homology domain pair protein		5.5	Gmet_0531
murein hydrolase-controlling membrane protein LrgB	lrgB	5.5	Gmet_1204
PAS domain protein		5.5	Gmet_0298
lipoprotein cytochrome c	omcN	5.5	Gmet_0581
aromatic catabolism-like sigma-54-dependent transcriptional regulator, XylR and V4R domain-containing		5.5	Gmet_2114
sensor histidine kinase response regulator, PAS and PAS domain-containing		5.5	Gmet_1707
thiolase, putative		5.5	Gmet_0144
winged helix-turn-helix transcriptional regulator, MarR family		5.5	Gmet_3450
radical SAM domain iron-sulfur cluster-binding oxidoreductase		5.5	Gmet_2730
hypothetical protein		5.5	Gmet_1734
efflux pump, RND family, membrane fusion protein	ybhG-2	5.5	Gmet_3464
hypothetical protein		5.5	Gmet_0006
leucyl aminopeptidase-related protein		5.5	Gmet_3024
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		5.5	Gmet_1701
winged-helix phosphate transcriptional response regulator	phoB	5.5	Gmet_2693
DNA mismatch repair ATPase MutS-2	mutS-2	5.5	Gmet_2974
acyl-CoA synthetase, AMP-forming		5.5	Gmet_0256

sensor histidine kinase, GAF domain-containing		5.5	Gmet_1993
TlpA family-related protein disulfide reductase		5.5	Gmet_1383
menaquinol oxidoreductase complex Cbc6,			
lipoprotein cytochrome c subunit	cbcR	5.5	Gmet_0541
biotin-dependent acyl-CoA carboxylase, biotin			
carboxylase subunit		5.5	Gmet_3249
cobalamin-5'-phosphate synthase	cobS	5.5	Gmet_0468
heterodisulfide oxidoreductase, CCG			
domain pair-containing subunit B	hdrB	5.5	Gmet_3425
nitrogenase-associated ferredoxin	fdxN	5.5	Gmet_0672
thioredoxin reductase	trxB	5.5	Gmet_3070
glycosyltransferase		5.5	Gmet_1969
membrane protein MviN	mviN	5.5	Gmet_2400
DUF748 repeat protein		5.5	Gmet_2829
UDP-alpha-N-acetylglucosamine 3-alpha-N-acetyl-L-			
fucosaminyltransferase, putative		5.5	Gmet_1502
phenylacetate--coenzyme A ligase	paaK-2	5.5	Gmet_1825
winged helix-turn-helix benzoyl-CoA			
degradation transcriptional repressor BgeR	bgeR	5.5	Gmet_2097
phage baseplate outer wedge protein (acidic lysozyme),			
putative		5.5	Gmet_1139
nucleoid maintenance protease YeaZ	yeaZ	5.5	Gmet_1258
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		5.5	Gmet_0566
trehalose/maltose transglucosylase and			
maltokinase, putative	treS	5.5	Gmet_3469
transporter, RhtB family		5.5	Gmet_0798
YgdL family protein		5.5	Gmet_3237
RNA methyltransferase, TrmA family		5.5	Gmet_1835
thioredoxin domain protein YyaL	yyaL	5.5	Gmet_2401
hypothetical protein		5.5	Gmet_1437
cytochrome c		5.5	Gmet_1087
MgI ^A -related GTPase		5.5	Gmet_3475
DNA repair protein RadA	radA	5.5	Gmet_3277
cobalt-precorrin-8X methylmutase	cbiC	5.5	Gmet_0477
sigma-54-dependent transcriptional response regulator		5.5	Gmet_1082
hypothetical protein		5.5	Gmet_2799
membrane protein, UPF0118 superfamily		5.5	Gmet_2773
2, 5-diamino-6-(5'-phosphoribosylamino)-4-			
(3H)-pyrimidinone deaminase and 5-amino-			
6-(5'-phosphoribosylamino)uracil reductase	ribD	5.5	Gmet_1624
ABC transporter, membrane protein	ybhR-2	5.5	Gmet_3460
cobalt-precorrin-3 C17-methyltransferase			
and adenosylcobyrinic acid synthase	cbiH/cbiP	5.5	Gmet_0485
hypothetical protein		5.5	Gmet_0706
periplasmic protein Ycel		5.5	Gmet_3449
selenide, water dikinase, selenocysteine-	selD	5.5	Gmet_2907

containing			
phosphoglucomutase/phosphomannomutase family			
protein		5.5	Gmet_0135
hypothetical protein		5.5	Gmet_1440
tRNA (5-carboxymethylaminomethyl-U34)			
modification GTPase	mnmE	5.5	Gmet_3560
hypothetical protein		5.5	Gmet_3399
protein phosphohistidine phosphatase SixA,			
putative	sixA	5.5	Gmet_0878
hypothetical protein		5.5	Gmet_3607
ABC transporter, ATP-binding protein, duplicated domain			
protein		5.5	Gmet_1926
acyl-protein synthetase		5.5	Gmet_0595
nickel ABC transporter, membrane protein			
NikQ	nikQ	5.5	Gmet_2440
hypothetical protein		5.5	Gmet_1485
hypothetical protein		5.5	Gmet_2800
(R)-methylmalonyl-CoA mutase, adenosylcobamide-			
binding subunit		5.5	Gmet_1574
hypothetical protein		5.4	Gmet_1056
serine O-acetyltransferase	cysE	5.4	Gmet_0870
hypothetical protein		5.4	Gmet_0020
sensor histidine kinase, HAMP domain-containing		5.4	Gmet_1027
DNA mismatch repair protein MutL	mutL	5.4	Gmet_2053
toxin, MazF family		5.4	Gmet_2603
membrane protein, putative		5.4	Gmet_2893
helix-turn-helix transcriptional regulator, LysR family		5.4	Gmet_0186
hypothetical protein		5.4	Gmet_2894
ABC transporter, membrane protein		5.4	Gmet_1900
hemerythrin family protein		5.4	Gmet_3121
prolyl-tRNA synthetase	proS	5.4	Gmet_1354
hypothetical protein		5.4	Gmet_0448
hypothetical protein		5.4	Gmet_3622
protein of unknown function DUF167		5.4	Gmet_0145
hypothetical protein		5.4	Gmet_0236
hypothetical protein		5.4	Gmet_1130
flagellar biogenesis ATPase FlhG	flhG	5.4	Gmet_0428
branched-chain amino acid ABC			
transporter, membrane protein	livM	5.4	Gmet_1821
undecaprenyl-diphospho-4-amino-4-deoxy-			
L- arabinose--lipid A 4-amino-4-deoxy-L-			
arabinose transferase, putative	arnT	5.4	Gmet_0887
hypothetical protein		5.4	Gmet_1141
hypothetical protein		5.4	Gmet_0877
agmatine deiminase, putative	aguA	5.4	Gmet_0711
membrane protein DUF318		5.4	Gmet_0519

futalosine synthase, putative	mqnA	5.4	Gmet_0986
cytochrome c		5.4	Gmet_0534
divalent manganese/zinc ABC transporter, membrane protein		5.4	Gmet_0493
lytic transglycosylase lipoprotein, putative		5.4	Gmet_2481
hypothetical protein		5.4	Gmet_2655
hypothetical protein		5.4	Gmet_1202
lipopolysaccharide ABC transporter, membrane protein LptF	lptF	5.4	Gmet_1249
metal-dependent hydrolase, beta-lactamase superfamily		5.4	Gmet_0954
ABC transporter, ATP-binding protein	ybfH-C2	5.4	Gmet_3462
hypothetical protein		5.4	Gmet_0235
protein of unknown function DUF107		5.4	Gmet_3149
acyl-CoA thioesterase		5.4	Gmet_1732
PilZ domain protein		5.4	Gmet_1757
type IV pilus minor pilin PilE	pilE	5.4	Gmet_0962
type IIs restriction endonuclease		5.4	Gmet_3138
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-4	5.4	Gmet_0712
NUDIX hydrolase, coenzyme A pyrophosphatase family		5.4	Gmet_3448
hypoxanthine/guanine transport membrane protein	pbuG	5.4	Gmet_2715
nitrate/nitrite antiporter	narT	5.4	Gmet_0334
(3R)-hydroxyacyl-(acyl carrier protein) dehydratase	fabZ-1	5.4	Gmet_1697
tRNA(Ile) lysidine-34 synthase, putative		5.4	Gmet_1891
transposase of ISGme7, IS3 family, OrfB		5.4	Gmet_1183
hypothetical protein		5.4	Gmet_0577
(R)-benzylsuccinate synthase, delta subunit	bssD	5.4	Gmet_1541
aromatic catabolism-like sigma-54-dependent transcriptional regulator, XylR and V4R domain-containing		5.4	Gmet_2116
electron transfer flavoprotein-associated cytochrome b and CCG domain pair iron-sulfur cluster-binding oxidoreductase		5.4	Gmet_1527
periplasmically oriented, membrane-bound [NiFe]-hydrogenase, cytochrome b subunit	hyab	5.4	Gmet_3330
aromatic acid decarboxylase, putative		5.4	Gmet_2105
HAD superfamily hydrolase		5.4	Gmet_1630
ResB-like family cytochrome c		5.4	Gmet_0140
methyl-accepting chemotaxis sensory transducer, class 40H, putative dimer with helix-swapped heme-binding site-containing PAS domain	mcp40H-2	5.4	Gmet_2939
GTPase EngB	engB	5.4	Gmet_0465
sensor histidine kinase CheA associated with MCPs of classes 40H and 40+24H	cheA64H	5.4	Gmet_3266

helicase, putative		5.4	Gmet_0994
hypothetical protein		5.4	Gmet_0764
UbiD family decarboxylase		5.4	Gmet_0993
RNA exonuclease, beta-lactamase fold protein		5.4	Gmet_1343
hypothetical protein		5.4	Gmet_0022
sterol desaturase-related protein		5.4	Gmet_3261
cytidylate kinase	cmk	5.4	Gmet_0865
PilZ domain protein		5.4	Gmet_0191
nitrogenase molybdenum-iron cofactor			
biosynthesis protein NifB	nifB	5.4	Gmet_0673
type VI secretion system outer membrane			
lipoprotein TssJ	tssJ	5.4	Gmet_3310
quinolinate synthetase complex, subunit A	nadA	5.4	Gmet_3544
thiol:disulfide interchange protein	dsbD	5.4	Gmet_0516
cytochrome c nitrite and sulfite reductase, catalytic subunit lipoprotein	nrfA-2	5.4	Gmet_0296
acetyltransferase, putative		5.4	Gmet_2096
(E)-2-benzylidenesuccinyl-CoA hydratase	bbsH	5.4	Gmet_1524
type II secretion system minor pseudopilin			
GspK	gspK	5.4	Gmet_3371
protein of unknown function DUF2914		5.4	Gmet_0953
(R)-2-hydroxyacyl-CoA dehydratase-radicalizing ATPase		5.4	Gmet_0544
hypothetical protein		5.4	Gmet_1477
periplasmic polysaccharide biosynthesis/export protein		5.4	Gmet_1444
ABC transporter, ATPase protein		5.4	Gmet_0997
hypothetical protein		5.4	Gmet_3049
glycosyltransferase HpnI	hpnl	5.4	Gmet_2815
translation elongation factor P-lysine			
lysyltransferase	genX	5.4	Gmet_1839
phosphate sensor histidine kinase, HAMP			
and PAS domain-containing	phoR	5.3	Gmet_2694
riboflavin kinase and FAD synthetase	ribF	5.3	Gmet_1388
ABC transporter, ATP-binding/membrane protein		5.3	Gmet_3416
hypothetical protein		5.3	Gmet_1474
ATP phosphoribosyltransferase, long form	hisGL	5.3	Gmet_1898
diguanylate cyclase		5.3	Gmet_2982
RNA-binding protein		5.3	Gmet_2631
ferrochelatase	hemH	5.3	Gmet_0019
DNA methyltransferase, putative		5.3	Gmet_1760
voltage-gated chloride channel, CBS domain pair-containing, putative		5.3	Gmet_3470
sensor histidine kinase CheA and response			
receiver CheY associated with MCPs of class	cheAY40H-		
40H	2	5.3	Gmet_2710
glycyl-tRNA synthetase, alpha subunit	glyQ	5.3	Gmet_2942
[acyl]-glycerolphosphate acyltransferase		5.3	Gmet_0363

cardiolipin synthase, putative	cls-1	5.3	Gmet_3078
tetraacyldisaccharide-1-phosphate 4'-kinase	lpxK	5.3	Gmet_2347
lipoprotein, putative		5.3	Gmet_1965
sulfate adenylyltransferase, subunit 2	cysD	5.3	Gmet_2859
N-carbamylputrescine amidohydrolase	aguB	5.3	Gmet_0710
benzoyl-CoA reductase electron transfer			
protein, selenocysteine-containing, putative	bamF	5.3	Gmet_2083
PEP motif-containing protein, putative			
exosortase substrate		5.3	Gmet_0797
Ech-hydrogenase-related complex, NuoL-			
like integral membrane subunit	ehrA-2	5.3	Gmet_0375
pyridoxal-5'-phosphate-dependent enzyme,			
class III	yggS	5.3	Gmet_0896
MobA-related glycosyltransferase, putative	pcmX	5.3	Gmet_2140
branched-chain amino acid ABC			
transporter, ATP-binding protein	livG	5.3	Gmet_1820
flagellar biogenesis protein FlhA	flhA	5.3	Gmet_0426
rhodanese homology domain superfamily protein		5.3	Gmet_3122
maltooligosyltrehalose synthase		5.3	Gmet_3468
iron-sulfur cluster-binding oxidoreductase,			
putative benzoyl-CoA reductase electron			
transfer protein	bamC-2	5.3	Gmet_1803
fumarylacetate hydrolase family			
protein	ycgM	5.3	Gmet_2937
membrane-associated phosphatase, PAP2_like_5 family		5.3	Gmet_1347
exodeoxyribonuclease V, beta subunit	recB	5.3	Gmet_1893
hypothetical protein		5.3	Gmet_3583
MatE-like domain efflux pump		5.3	Gmet_2508
membrane protein of unknown function DUF502		5.3	Gmet_2699
metal-dependent phosphohydrolase, HDc domain-containing			
lipoprotein, putative		5.3	Gmet_2382
sensor histidine kinase		5.3	Gmet_3452
phenylphosphate carboxylase, delta subunit		5.3	Gmet_2770
3-oxoacyl-(acyl carrier protein) synthase III	fabH-1	5.3	Gmet_2112
nitrogen fixation iron-sulfur cluster		5.3	Gmet_3272
assembly cysteine desulfurase NifS	nifS-2	5.3	Gmet_0872
N-acetylneuraminate synthase family protein		5.3	Gmet_0455
protein of unknown function, DUF490-containing		5.3	Gmet_2809
efflux pump, RND superfamily, and rRNA			
methyltransferase, putative	hpnN	5.3	Gmet_2819
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		5.3	Gmet_0245
membrane protein DedA		5.3	Gmet_1368
chromosome condensation membrane			
protein CrcB, putative	crcB	5.3	Gmet_3016
Ech-hydrogenase-related complex, large	ehrL-1	5.3	Gmet_2597

subunit			
2-[hydroxy(phenyl)methyl]-succinyl-CoA dehydrogenase subunit	bbsC	5.3	Gmet_1530
zinc-dependent membrane dipeptidase, M19 family hypothetical protein		5.3	Gmet_3505
copper-translocating P-type ATPase	copA	5.3	Gmet_0290
hypothetical protein		5.3	Gmet_2772
hydrogenase expression/formation protein		5.3	Gmet_0569
HypE	hypE	5.3	Gmet_0116
DUF362 iron-sulfur cluster-binding domain protein		5.3	Gmet_3040
nitrite/sulfite reductase domain protein		5.3	Gmet_2520
integrase domain protein		5.3	Gmet_2803
carbonic anhydrase, beta-family, clade D		5.3	Gmet_0774
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-21	5.3	Gmet_2709
SCP-like extracellular protein		5.3	Gmet_0796
acylphosphatase		5.3	Gmet_2729
tRNA (5-carboxymethylaminomethyl-2-thio-U34)-thioltransferase	mnmA	5.3	Gmet_0873
UDP-N-acetylglucosamine 4,6-dehydratase and UDP-2-acetamido-2,6-dideoxy-alpha-D-xylo-4-hexulose 5-epimerase	pseB	5.3	Gmet_0458
sensor diguanylate cyclase/phosphodiesterase, PAS domain-containing		5.3	Gmet_0987
diguanylate cyclase		5.3	Gmet_0049
heterodisulfide oxidoreductase, iron-sulfur cluster-binding subunit D	hdrD	5.3	Gmet_3428
RHS repeat protein		5.3	Gmet_1475
type VI secretion system needle syringe protein Tssl	tssl	5.3	Gmet_0286
glycosyltransferase		5.3	Gmet_0919
menaquinol oxidoreductase complex Cbc6, membrane protein subunit, putative	cbcQ	5.2	Gmet_3585
FAD-dependent pyridine nucleotide-disulfide oxidoreductase family protein		5.2	Gmet_3041
sensor histidine kinase, HAMP domain-containing site-specific recombinase XerC	xerC	5.2	Gmet_0527
diguanylate cyclase, CAP_ED domain-containing		5.2	Gmet_3042
hypothetical protein		5.2	Gmet_0773
protein of unknown function DUF2064		5.2	Gmet_2092
CGGC domain protein		5.2	Gmet_3073
cell shape-determining protein RodA	rodA	5.2	Gmet_3511
hypothetical protein		5.2	Gmet_0929
hydrogenase assembly chaperone		5.2	Gmet_2802
HypC/HupF	hypC	5.2	Gmet_0118
protein of unknown function DUF2845		5.2	Gmet_1108
glycosyltransferase, SpsF domain-containing		5.2	Gmet_0454

response receiver-modulated cyclic diguanylate phosphodiesterase		5.2	Gmet_3476
nitrogenase molybdenum-iron cofactor biosynthesis protein NifX	nifX	5.2	Gmet_0671
hypothetical protein		5.2	Gmet_1132
sensor diguanylate cyclase, GAF domain-containing glycosyltransferase, WbnK-like family		5.2	Gmet_1298
precorrin-2 dehydrogenase and sirohydrochlorin ferrochelatase, putative S1 RNA-binding domain-containing transcriptional accessory protein	cysG	5.2	Gmet_3231
peptidoglycan-binding ATPase, putative	tex	5.2	Gmet_0182
GH3 family protein	exeA	5.2	Gmet_2466
sensor histidine kinase response regulator, Cache_1, HAMP, PAS, PAS, PAS and PAS domain-containing Ech-hydrogenase-related complex, large subunit		5.2	Gmet_1478
sigma-54-dependent sensor transcriptional regulator, PAS domain-containing	ehrL-2	5.2	Gmet_3477
sensor diguanylate cyclase/phosphodiesterase, HAMP and PAS domain-containing		5.2	Gmet_0371
thioredoxin domain protein		5.2	Gmet_2055
hypothetical protein		5.2	Gmet_0700
metal-dependent phosphohydrolase, putative		5.2	Gmet_2654
LysM domain protein		5.2	Gmet_1786
hypothetical protein		5.2	Gmet_1107
molybdate ABC transporter, membrane protein	modB	5.2	Gmet_3225
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-6	5.2	Gmet_3388
short-chain acyl-CoA dehydrogenase		5.2	Gmet_0513
CMP-3-deoxy-D-manno-octulosonate--lipid A tetraacyldisaccharide 3-deoxy-D-manno-octulosonate transferase	kdtA	5.2	Gmet_1710
crossover junction endodeoxyribonuclease RuvC	ruvC	5.2	Gmet_2348
response receiver type II secretion system ATPase and double zinc ribbon protein, Pule and DZR domain-containing		5.2	Gmet_0744
hypothetical protein		5.2	Gmet_3473
GAF domain protein		5.2	Gmet_0499
SAM-dependent methyltransferase, putative		5.2	Gmet_2303
aspartyl/glutamyl-tRNA(Asn/Gln) amidotransferase, C subunit	gatC	5.2	Gmet_0136
exopolysaccharide synthesis membrane protein H (exosortase) and periplasmic protein I	epsHI	5.2	Gmet_0076
		5.2	Gmet_1503

glycosyltransferase		5.2	Gmet_1480
helix-turn-helix DNA-binding protein, putative		5.2	Gmet_1791
ABC transporter, periplasmic substrate-binding protein, aliphatic sulfonates		5.2	Gmet_1901
flagellar assembly protein FliH	fliH	5.2	Gmet_3110
hypothetical protein		5.2	Gmet_0284
hypothetical protein		5.2	Gmet_0281
glutamyl-tRNA synthetase, non-discriminating	gltX	5.2	Gmet_1736
indolepyruvate:ferredoxin oxidoreductase, alpha subunit	iorA-2	5.2	Gmet_0948
DNA/RNA-binding protein, putative		5.2	Gmet_1852
NAD(+)--nitrogenase ADP-D-ribosyltransferase	draT	5.2	Gmet_0674
flavodoxin, putative		5.2	Gmet_2647
phosphotransbutyrylase	ptb	5.2	Gmet_2098
Ech-hydrogenase-related complex, small subunit	ehrS-2	5.2	Gmet_0369
acyl-CoA--carboxylate coenzyme A transferase, alpha subunit, putative		5.2	Gmet_1709
hypothetical protein		5.2	Gmet_1964
hypothetical protein		5.2	Gmet_3005
protein phosphoaspartate phosphatase CheX	cheX-4	5.2	Gmet_1606
menaquinol oxidoreductase complex Cbc6, cytochrome b subunit, putative	cbcP	5.2	Gmet_0539
hypothetical protein		5.2	Gmet_2656
4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase	ispG	5.2	Gmet_1353
small-conductance mechanosensitive ion channel	mscS-2	5.2	Gmet_2581
lipoprotein, putative		5.2	Gmet_0027
menaquinol oxidoreductase complex, cytochrome c subunit	pcmF	5.2	Gmet_2122
Kup system potassium transporter		5.2	Gmet_0039
S-methyl-5-thio-alpha-D-ribose-1-phosphate isomerase	mtnA	5.2	Gmet_0072
2-methylcitrate dehydratase	prpD	5.2	Gmet_1123
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-19	5.2	Gmet_0529
enoyl-CoA hydratase/isomerase		5.2	Gmet_1575
4-hydroxythreonine-4-phosphate dehydrogenase	pdxA	5.2	Gmet_3404
hypothetical protein		5.2	Gmet_0185
ABC transporter, membrane protein	ybhS-2	5.2	Gmet_3461
nucleoside phosphorylase		5.2	Gmet_1274
phosphate ABC transporter, membrane	pstC	5.2	Gmet_2702

protein PstC			
SAM-dependent O-methyltransferase, putative	5.2	Gmet_1491	
response regulator, GspIIEN domain-containing	5.2	Gmet_1737	
hypothetical protein	5.2	Gmet_0719	
sigma-54-dependent transcriptional response regulator	5.2	Gmet_0961	
metal-dependent phosphohydrolase	5.2	Gmet_2108	
biotin operon repressor and biotin--acetyl-			
CoA carboxylase ligase	birA	5.2	Gmet_1987
heterodisulfide oxidoreductase, iron-sulfur			
cluster-binding subunit C	hdrC	5.2	Gmet_3424
cytochrome c		5.2	Gmet_2899
HAD superfamily hydrolase		5.2	Gmet_1090
methyl-accepting chemotaxis sensory			
transducer, class 40H, Cache_2 domain-	mcp40H-		
containing	11	5.2	Gmet_2825
respiratory nitrate reductase chaperone			
protein	narJ	5.2	Gmet_0331
menaquinol oxidoreductase complex Cbc6,			
iron-sulfur cluster-binding subunit, putative	cbcO	5.2	Gmet_0538
DNA polymerase IV		5.2	Gmet_1441
arsenite efflux pump	arsB	5.2	Gmet_0520
SAM-dependent methyltransferase		5.2	Gmet_2793
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase with cobalamin-binding-like domain		5.1	Gmet_0101
tryptophan synthase, homodimeric beta			
subunit	trpB2	5.1	Gmet_2493
polysaccharide deacetylase and DUF3473 domain protein		5.1	Gmet_1685
membrane protein, major facilitator superfamily		5.1	Gmet_0223
hypothetical protein		5.1	Gmet_1023
electron transfer flavoprotein, beta subunit		5.1	Gmet_2153
adenylyltransferase, putative		5.1	Gmet_1800
periplasmic solute-binding protein		5.1	Gmet_0781
iron-sulfur cluster-binding protein		5.1	Gmet_0999
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase, DUF2344-containing		5.1	Gmet_3191
hypothetical protein		5.1	Gmet_0758
lipoate synthase	lipA	5.1	Gmet_3150
protein glutamate methylesterase CheB			
associated with MCPs of class 36H,			
response receiver domain-containing	cheB36H	5.1	Gmet_1075
3-dehydroquinate synthase	aroB	5.1	Gmet_0978
menaquinone biosynthesis polyprenyltransferase,			
putative		5.1	Gmet_3393
ADP-heptose--lipopolysaccharide heptosyltransferase,			
putative		5.1	Gmet_0585
citrate synthase		5.1	Gmet_1124
electron transfer flavoprotein-associated cytochrome b		5.1	Gmet_2065

and CCG domain pair iron-sulfur cluster-binding oxidoreductase		
ammonium transporter, putative	5.1	Gmet_1738
membrane protein, putative	5.1	Gmet_2949
chromate transport protein ChrA, subunit 1, putative	5.1	Gmet_2732
phenylphosphate carboxylase, beta subunit	5.1	Gmet_2102
Ech-hydrogenase-related complex, HyfF-like		
integral membrane subunit	ehrD-2	5.1 Gmet_0372
helix-turn-helix DNA-binding protein, putative		5.1 Gmet_1784
ABC transporter, ATP-binding protein	ybhF-N2	5.1 Gmet_3463
hypothetical protein		5.1 Gmet_0498
sensor histidine kinase, Cache_1, HAMP, PAS and PAS		
domain-containing		5.1 Gmet_3478
ligand-gated TonB-dependent outer membrane channel		5.1 Gmet_1245
transcription antitermination factor NusB	nusB	5.1 Gmet_1628
membrane protein, major facilitator superfamily		5.1 Gmet_0906
type VI secretion system needle hub protein		
TssE	tssE	5.1 Gmet_3312
hypothetical protein		5.1 Gmet_2944
protein of unknown function, DUF297-containing		5.1 Gmet_1962
(R)-benzylsuccinate synthase, beta subunit	bssB	5.1 Gmet_1538
hypothetical protein		5.1 Gmet_1145
SAM-dependent methyltransferase		5.1 Gmet_2830
protein of unknown function DUF296		5.1 Gmet_2807
hypothetical protein		5.1 Gmet_2467
indolepyruvate:ferredoxin oxidoreductase,		
beta subunit	iorB-1	5.1 Gmet_1826
sensor histidine kinase, HAMP domain-containing		5.1 Gmet_1057
hypothetical protein		5.1 Gmet_1436
laccase family multicopper oxidase	ompB	5.1 Gmet_2163
hypothetical protein		5.1 Gmet_0228
translation elongation factor P-lysyl-lysine		
2,3-aminomutase	yjeK	5.1 Gmet_1840
hypothetical protein		5.1 Gmet_3000
sensor histidine kinase, HAMP domain-containing		5.1 Gmet_2737
cytochrome c		5.1 Gmet_0733
CBS domain pair protein		5.1 Gmet_0307
adenosine-5'-phosphosulfate reductase,		
glutathione-dependent	apr	5.1 Gmet_2858
iron-sulfur cluster-binding oxidoreductase		5.1 Gmet_0807
hypothetical protein		5.1 Gmet_1963
cytochrome c		5.1 Gmet_0292
sensor histidine kinase, PAS, PAS, PAS and sensory_box		
domain-containing		5.1 Gmet_1083
cystathionine gamma-synthase/beta-lyase	metC-1	5.1 Gmet_0698
UDP-N-acetylglucosamine--undecaprenyl-phosphate N-		
acetylglucosaminephosphotransferase, putative		5.1 Gmet_1505

radical SAM domain iron-sulfur cluster-binding oxidoreductase		5.1	Gmet_1807
flotillin band_7_5 domain protein		5.1	Gmet_0754
winged helix-turn-helix transcriptional regulator, MarR family	pcmQ	5.1	Gmet_2133
hypothetical protein		5.1	Gmet_2595
hypothetical protein		5.1	Gmet_1134
prolidase family protein		5.1	Gmet_2690
phosphate transport system regulatory protein PhoU	phoU	5.1	Gmet_2705
DNA mismatch repair ATPase MutS-1	mutS-1	5.1	Gmet_1424
Ech-hydrogenase-related complex, NuoL-like integral membrane subunit	ehrA-1	5.1	Gmet_2601
oxidoreductase, flavin-binding protein		5.1	Gmet_1533
hypothetical protein		5.1	Gmet_1137
S4 domain protein		5.1	Gmet_0098
Ech-hydrogenase-related complex, HyfF-like integral membrane subunit	ehrD-1	5.1	Gmet_2598
helix-turn-helix iron-sulfur cluster-binding transcriptional regulator IscR	iscR-2	5.1	Gmet_0871
protein of unknown function DUF329		5.1	Gmet_1735
acyl-CoA synthetase, AMP-forming		5.1	Gmet_2692
cytochrome c		5.1	Gmet_2156
response receiver CheY associated with MCPs of classes 40H and 40+24H	cheY64H-1	5.1	Gmet_3119
protein serine/threonine phosphatase, PP2C family, CBS domain pair-containing		5.1	Gmet_1472
response receiver-modulated diguanylate cyclase		5.1	Gmet_1706
protein of unknown function DUF486		5.1	Gmet_1773
hydrogenase accessory protein HypB	hypB	5.0	Gmet_0120
thymidylate kinase, putative	tmk-2	5.0	Gmet_3250
DNA ligase, NAD-dependent	ligA	5.0	Gmet_2728
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-18	5.0	Gmet_0799
methyl-accepting chemotaxis sensory transducer, class 34H	mcp34H-6	5.0	Gmet_2424
response receiver sensor histidine kinase		5.0	Gmet_1670
Kup system potassium transporter		5.0	Gmet_0038
DnaA regulatory inactivator Hda	hda	5.0	Gmet_0747
glycosyltransferase		5.0	Gmet_0766
succinyl:benzoate coenzyme A transferase		5.0	Gmet_3294
formate dehydrogenase formation protein	fdhE	5.0	Gmet_1004
diaminopimelate epimerase	dapF	5.0	Gmet_2992
ATP-dependent DNA helicase, PcrA/UvrD/Rep family		5.0	Gmet_3223
endodeoxyribonuclease IV	nfo	5.0	Gmet_2994
cation-translocating P-type ATPase		5.0	Gmet_3497
carboxythiazole phosphate tautomerase	tenl	5.0	Gmet_2935

hydrolase, putative		5.0	Gmet_2922
sphingosine/diacylglycerol kinase-related protein		5.0	Gmet_2741
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase with cobalamin-binding-like domain		5.0	Gmet_1705
ABC transporter, periplasmic substrate-binding protein		5.0	Gmet_1244
sensor histidine kinase response regulator, HAMP			
domain-containing		5.0	Gmet_1243
protein 3-oxoalanine-generating enzyme family protein		5.0	Gmet_2718
UroD-like decarboxylase/methyltransferase, putative		5.0	Gmet_2750
sensor histidine kinase, HAMP domain-containing		5.0	Gmet_1667
aromatic hydrocarbon degradation outer membrane			
protein		5.0	Gmet_1535
phosphate ABC transporter, periplasmic			
phosphate-binding protein	pstS	5.0	Gmet_2701
menaquinol oxidoreductase complex Cbc6,			
lipoprotein cytochrome c subunit	cbcM	5.0	Gmet_0536
thiamin biosynthesis protein Thil-related adenine			
nucleotide alpha hydrolase superfamily protein		5.0	Gmet_3402
phosphate/sulfate transporter family membrane protein		5.0	Gmet_3131
hypothetical protein		5.0	Gmet_3327
electron transfer flavoprotein, alpha			
subunit	etfA-5	5.0	Gmet_1526
sulfite reductase subunit, putative		5.0	Gmet_1570
hypothetical protein		5.0	Gmet_0243
UDP-N-acetylglucosamine--undecaprenyl-phosphate N-			
acetylglucosamine-1-phosphate transferase and			
peptidylprolyl cis-trans isomerase, FKBP-type		5.0	Gmet_2161
protein of unknown function DUF980		5.0	Gmet_2917
aromatic catabolism-like sigma-54-dependent			
transcriptional regulator, XylR and V4R domain-			
containing		5.0	Gmet_2099
glycerol-3-phosphate dehydrogenase,			
NAD(P)-dependent	gpsA	5.0	Gmet_0008
type IV prepilin-like proteins leader peptide			
processing enzyme	pilD	5.0	Gmet_0959
3-hydroxyacyl-CoA dehydrogenase		5.0	Gmet_1717
RNA polymerase sigma factor		5.0	Gmet_2792
pyranopterin triphosphate synthase	moaA-2	5.0	Gmet_0337
electron transfer flavoprotein-associated cytochrome b			
and CCG domain pair iron-sulfur cluster-binding			
oxidoreductase		5.0	Gmet_2070
nitrogen fixation transcript antitermination			
response regulator, ANTAR domain-			
containing	gnfR	5.0	Gmet_0660
magnesium-dependent deoxyribonuclease, TatD family,			
and radical SAM domain iron-sulfur oxidoreductase		5.0	Gmet_2464
carboxynorspermidine/carboxyspermidine		5.0	Gmet_0902

dehydrogenase				
cytochrome c	ppcC	5.0	Gmet_3165	
sensor histidine kinase response regulator, HAMP domain-containing, putative heme-binding site		5.0	Gmet_2426	
octanoyl-(acyl carrier protein)-protein				
octanoyltransferase	lipB	5.0	Gmet_2747	
sensor histidine kinase	bamV	5.0	Gmet_2146	
molybdopterin--molybdenum ligase	moeA-2	5.0	Gmet_0336	
sensor diguanylate cyclase/phosphodiesterase, S-box-containing		5.0	Gmet_0782	
benzoate--coenzyme A ligase	bamY	5.0	Gmet_2143	
membrane protein of unknown function DUF898		5.0	Gmet_0097	
hypothetical protein		5.0	Gmet_3224	
ribosome small subunit biogenesis GTPase RsgA	rsgA	5.0	Gmet_0794	
glycosyltransferase		5.0	Gmet_1492	
riboflavin synthase	ribE	5.0	Gmet_1625	
murein hydrolase-controlling membrane protein LrgA	lrgA	5.0	Gmet_1205	
UDP-N-acetylglucosamine 2-epimerase		5.0	Gmet_1489	
hypothetical protein		5.0	Gmet_3624	
potassium-transporting ATPase, B subunit	kdpB	5.0	Gmet_2434	
excinuclease ABC family protein		5.0	Gmet_2580	
integron integrase		5.0	Gmet_3006	
hypothetical protein		5.0	Gmet_1462	
acyl-CoA thioesterase		5.0	Gmet_1721	
electron transfer flavoprotein, beta subunit	etfB-9	5.0	Gmet_3300	
membrane protein, putative		5.0	Gmet_1389	
metal-dependent hydrolase, putative	bamU	5.0	Gmet_2147	
response receiver-modulated cyclic diguanylate phosphodiesterase		5.0	Gmet_2999	
hypothetical protein		5.0	Gmet_0173	
acyl-CoA thioesterase		4.9	Gmet_2063	
hypothetical protein		4.9	Gmet_1142	
sulfate adenylyltransferase, subunit 1	cysN	4.9	Gmet_2860	
type VI secretion system ATPase TssH, putative chaperone	tssH	4.9	Gmet_3315	
UDP-2-acetamido-2, 6-dideoxy-beta-L-arabino-4-hexulose 4-aminotransferase, putative		4.9	Gmet_0457	
dihydrofolate reductase	folA	4.9	Gmet_2947	
peptidylprolyl cis-trans isomerase, FKBP-type		4.9	Gmet_2164	
hypothetical protein		4.9	Gmet_3591	
hypothetical protein		4.9	Gmet_1494	
magnesium-dependent deoxyribonuclease, TatD family		4.9	Gmet_3236	
hypothetical protein		4.9	Gmet_0287	
electron transfer flavoprotein, alpha subunit	etfA-9	4.9	Gmet_3301	

NADPH-dependent glutamate synthase, GXGXG domain subunit		4.9	Gmet_1752
efflux pump, RND family, membrane fusion lipoprotein peptidoglycan L,D-transpeptidase, YkuD family, LysM domain-containing		4.9	Gmet_3128
methyl viologen-reducing hydrogenase, small subunit	mvhS	4.9	Gmet_1577
6-hydroxycyclohex-1-ene-1-carbonyl-CoA dehydrogenase	bamQ	4.9	Gmet_3319
pyranopterin triphosphate synthase	moaA-3	4.9	Gmet_2151
D-glycero-D-mannoheptose-1,7-bisphosphate phosphatase	gmhB	4.9	Gmet_2095
Ech-hydrogenase-related complex, HyfE-like integral membrane subunit	ehrC-1	4.9	Gmet_0923
sigma-54-dependent sensor transcriptional regulator, PAS domain-containing		4.9	Gmet_2599
flagellar protein FlaG	flaG	4.9	Gmet_3285
hypothetical protein		4.9	Gmet_0463
hypothetical protein		4.9	Gmet_0757
menaquinol oxidoreductase complex Cbc4, cytochrome b subunit, putative	cbcU-2	4.9	Gmet_2090
succinyl:(R)-benzylsuccinate coenzyme A transferase subunit	bbsE	4.9	Gmet_0327
lipoprotein, putative		4.9	Gmet_1521
hypothetical protein		4.9	Gmet_3589
hypothetical protein		4.9	Gmet_0305
GDP-mannose 4,6-dehydratase and GDP-6-deoxy-D-lyxo-4-hexulose reductase	gmd-2	4.9	Gmet_0689
membrane protein, putative		4.9	Gmet_1488
lipoate--protein ligase A	lplA	4.9	Gmet_0570
protein of unknown function DUF853		4.9	Gmet_3151
menaquinone biosynthesis decarboxylase, putative		4.9	Gmet_0767
hypothetical protein		4.9	Gmet_3392
hypothetical protein		4.9	Gmet_2659
hypothetical protein		4.9	Gmet_2468
response receiver CheY associated with MCPs of class 34H	cheY34H-2	4.9	Gmet_2785
hypothetical protein		4.9	Gmet_2431
ankyrin/PDZ domain protein		4.9	Gmet_2984
6,7-dimethyl-8-ribityllumazine synthase	ribH	4.9	Gmet_2658
membrane protein, major facilitator superfamily		4.9	Gmet_1627
hypothetical protein		4.9	Gmet_2465
NADP-dependent menaquinol:acrylyl-CoA oxidoreductase	acul	4.9	Gmet_3601
CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase	pgsA-2	4.9	Gmet_0804
peptidase, M28 family		4.9	Gmet_0822
		4.9	Gmet_1467

hydrogenase nickel insertion protein HypA	hypA	4.9	Gmet_3156
iron-sulfur cluster-binding oxidoreductase		4.9	Gmet_0586
butyrate kinase	pcmL/buk-2	4.9	Gmet_2128
tRNA (2-methylthio-N6-threonylcarbamyl-A37) methylthiotransferase	mtaB	4.9	Gmet_0874
benzoyl-CoA reductase, putative	bamB-1	4.9	Gmet_2087
selenocysteine-specific translation elongation factor	selB	4.9	Gmet_3415
succinyl:(R)-benzylsuccinate coenzyme A transferase subunit	bbsF	4.9	Gmet_1522
efflux pump, RND family, membrane fusion protein		4.9	Gmet_3508
FAD-dependent pyridine nucleotide-disulfide oxidoreductase family protein, rhodanese homology domain-containing		4.9	Gmet_3484
hypothetical protein		4.9	Gmet_1836
DNA methyltransferase, putative		4.9	Gmet_0255
hypothetical protein		4.9	Gmet_3135
hypothetical protein		4.9	Gmet_2486
antitoxin, HicB family		4.9	Gmet_2591
radical SAM domain iron-sulfur cluster-binding oxidoreductase with cobalamin-binding-like domain		4.9	Gmet_1700
CheR-related putative SAM-binding domain protein		4.9	Gmet_3271
type II secretion system protein GspC, putative serine protease	gspC	4.9	Gmet_3363
sensor histidine kinase, HAMP domain-containing protein of unknown function DUF4150		4.8	Gmet_0960
sodium/solute symporter family protein		4.8	Gmet_0288
glycosyltransferase, YqgM-like family		4.8	Gmet_2061
phenylphosphate synthase, beta subunit		4.8	Gmet_2890
FlhB domain protein		4.8	Gmet_2101
hypothetical protein		4.8	Gmet_3161
nitrogenase molybdenum-iron protein, beta chain	nifK	4.8	Gmet_0753
periplasmic energy transduction protein, TonB-related protein		4.8	Gmet_0664
menaquinol oxidoreductase complex Cbc6, cytochrome c subunit	cbcN	4.8	Gmet_1461
enoyl-CoA hydratase/isomerase		4.8	Gmet_0537
ResC/HemX-like cytochrome c		4.8	Gmet_1716
multicopper oxidase		4.8	Gmet_0579
ligand-gated TonB-dependent outer membrane channel		4.8	Gmet_2155
radical SAM domain iron-sulfur cluster-binding oxidoreductase		4.8	Gmet_1669
NADH pyrophosphatase	nudC	4.8	Gmet_0423
protein of unknown function UPF0102		4.8	Gmet_0714
hypothetical protein		4.8	Gmet_2864
		4.8	Gmet_2906

zinc-dependent amidohydrolase, putative		4.8	Gmet_3385
nitrogenase iron protein	nifH	4.8	Gmet_0662
sodium/solute symporter family protein	aplD	4.8	Gmet_3031
L-allo-threonine aldolase, stereospecific	ItaA	4.8	Gmet_0270
sensor histidine kinase response receiver, PAS and GAF domain-containing		4.8	Gmet_2824
helix-turn-helix transcriptional regulator, IclR family		4.8	Gmet_2064
acyl carrier protein phosphodiesterase, putative	acpH	4.8	Gmet_2389
hypothetical protein		4.8	Gmet_1451
arsenate reductase and protein tyrosine phosphatase	arsC	4.8	Gmet_0521
formamidopyrimidine-DNA glycosylase	mutM	4.8	Gmet_1206
hypothetical protein		4.8	Gmet_2666
electron transfer flavoprotein, alpha subunit	etfA-7	4.8	Gmet_1712
NADPH-dependent glutamate synthase, NADPH oxidoreductase subunit		4.8	Gmet_1754
sensor histidine kinase response receiver		4.8	Gmet_2998
D-alanyl-D-alanine carboxypeptidase-related and peptidoglycan-binding domain protein		4.8	Gmet_0285
branched-chain amino acid ABC transporter, membrane protein	livH	4.8	Gmet_1822
ATPase, putative		4.8	Gmet_2310
sigma-54-dependent sensor transcriptional regulator, PAS domain-containing		4.8	Gmet_2109
biopolymer transport membrane proton channel, TolQ-related protein		4.8	Gmet_1459
hypothetical protein		4.8	Gmet_2798
ResB-like family cytochrome c		4.8	Gmet_0578
hypothetical protein		4.8	Gmet_2657
menaquinol oxidoreductase complex, cytochrome b subunit	pcmC	4.8	Gmet_2119
hypothetical protein		4.8	Gmet_0533
potassium-transporting ATPase, A subunit	kdpA	4.8	Gmet_2433
sensor diguanylate cyclase/phosphodiesterase, GAF domain-containing		4.8	Gmet_0957
protein of unknown function, DUF830-containing		4.8	Gmet_0084
iron-sulfur cluster-binding oxidoreductase, CCG domain pair-containing, putative			
benzoyl-CoA reductase electron transfer protein	bamD	4.8	Gmet_2085
oxidoreductase related to nitroreductase, putative ATPase, AAA family		4.8	Gmet_3446
ABC transporter, membrane protein, ABC-2 family		4.8	Gmet_0905
UDP-N-acetylglucosamine 2-epimerase		4.8	Gmet_0014
exodeoxyribonuclease V, gamma subunit	recC	4.8	Gmet_1504
		4.8	Gmet_1894

polyphosphate/ATP-dependent NAD kinase response receiver CheY associated with MCPs of class 40H	ppnK	4.8	Gmet_0941
glutamyl-Q-tRNA(Asp) synthetase periplasmically oriented, membrane-bound [NiFe]-hydrogenase, small subunit thiolase	yadB	4.7	Gmet_1780
TIM barrel protein, AP endonuclease family 2/xylose isomerase-like family phenol transport outer membrane protein, putative phenylphosphate synthase, alpha subunit protein of unknown function DUF167 transcriptional response regulator LytT metallophosphoesterase, putative butyrate kinase hypothetical protein PilB/PuIE/GspE family ATPase short-chain acyl-CoA dehydrogenase hypothetical protein protein glutamate methyltransferase CheR associated with MCPs of class 36H ADP-heptose--lipopolysaccharide heptosyltransferase (R)-benzylsuccinyl-CoA dehydrogenase VWFA superfamily protein thiolase GTPase, HflIX subfamily hypothetical protein glycosyltransferase, WfgS-like family enoyl-CoA hydratase/isomerase DoxX family protein ankyrin repeat protein scaffold protein CheW associated with MCPs of class 40H sodium/solute symporter family protein ABC transporter, ATP-binding protein hypothetical protein menaquinol oxidoreductase complex, membrane protein subunit lysine--8-amino-7-oxononanoate aminotransferase acyl-CoA--carboxylate coenzyme A transferase, family III methyl-accepting chemotaxis sensory transducer, class 34H, PAS and PAS domain-containing hypothetical protein hypoxanthine/guanine phosphoribosyltransferase, putative	hydS bamN lytT buk-1 cheR36H bbsG cheW40H-4 aplB pcmD bioA mcp34H-8	4.7 4.7	Gmet_3332 Gmet_2074 Gmet_0064 Gmet_2107 Gmet_2100 Gmet_1164 Gmet_2697 Gmet_0841 Gmet_2106 Gmet_3326 Gmet_3401 Gmet_3307 Gmet_0892 Gmet_1077 Gmet_2345 Gmet_1523 Gmet_0107 Gmet_1719 Gmet_2557 Gmet_3630 Gmet_1493 Gmet_3284 Gmet_0190 Gmet_2661 Gmet_2706 Gmet_3288 Gmet_2524 Gmet_1481 Gmet_2120 Gmet_1580 Gmet_1711 Gmet_2422 Gmet_3318 Gmet_2716

DNA repair ATPase RecN	recN	4.7	Gmet_0942
nitrogenase molybdenum-iron protein, alpha chain	nifD	4.7	Gmet_0663
p-cresol methylhydroxylase, alpha subunit	pcmJ	4.7	Gmet_2126
hypothetical protein		4.7	Gmet_2117
sensor histidine kinase LytS, GAF domain-containing	lytS	4.7	Gmet_2698
transporter, Bcr/CflA subfamily		4.7	Gmet_1682
protein of unknown function UPF0261		4.7	Gmet_2110
efflux pump, RND family, membrane fusion lipoprotein		4.7	Gmet_1651
protein of unknown function DUF2127		4.7	Gmet_2637
zinc-dependent isopeptidase		4.7	Gmet_1569
[lipopolysaccharide]-lipid A 3-O-deacylase outer membrane protein, PagL family		4.7	Gmet_1704
cytochrome c		4.7	Gmet_0575
SAM-dependent methyltransferase, putative twin-arginine translocation pathway		4.7	Gmet_2970
protein, TatA/TatE family	pcmP	4.7	Gmet_2132
lipoprotein, putative		4.7	Gmet_3298
dihydrolipoamide dehydrogenase	lpdA-2	4.7	Gmet_1896
formate dehydrogenase accessory protein FdhD		4.7	Gmet_2076
protein of unknown function DUF162		4.7	Gmet_3334
tRNA pseudouridine 65 synthase	truC	4.7	Gmet_0267
exodeoxyribonuclease V, alpha subunit	recD	4.7	Gmet_1892
enoyl-CoA hydratase/isomerase		4.7	Gmet_3305
protein of unknown function DUF2844		4.7	Gmet_1675
p-cresol methylhydroxylase, beta subunit			
cytochrome c	pcmG	4.7	Gmet_2123
rhodanese homology domain superfamily protein		4.7	Gmet_3018
helix-turn-helix transcriptional regulator, IclR family		4.7	Gmet_3286
serine protease, subtilase family		4.7	Gmet_1449
fibronectin type III repeat, DUF2341 repeat and LamG-like domain protein		4.7	Gmet_2469
PilZ domain protein		4.7	Gmet_2523
membrane protein DUF81, putative		4.7	Gmet_1097
iron-sulfur cluster-binding oxidoreductase, putative benzoyl-CoA reductase electron transfer protein	bamC-1	4.7	Gmet_2086
hypothetical protein		4.7	Gmet_0311
electron transfer flavoprotein, beta subunit	etfB-5	4.7	Gmet_1525
iron-sulfur cluster-binding oxidoreductase	yccM-1	4.7	Gmet_3335
sensor histidine kinase CheA associated with MCPs of class 34H	cheA34H	4.7	Gmet_2427
protein glutamine deamidase and protein glutamate methyl esterase CheD associated with MCPs of class 34H	cheD34H	4.7	Gmet_2419
tRNA (5-carboxymethylaminomethyl-2-thio-	tusA-1	4.7	Gmet_1571

U34) synthesis sulfur carrier protein				
hypothetical protein		4.7	Gmet_2589	
carbamyl-phosphate synthase, large				
subunit, glutamine-dependent	carB-2	4.6	Gmet_0661	
protein of unknown function DUF2495		4.6	Gmet_2700	
hypothetical protein		4.6	Gmet_0755	
succinyl-CoA synthetase, alpha subunit	sucD-1	4.6	Gmet_0730	
membrane protein DUF81, putative		4.6	Gmet_1534	
STAS domain protein		4.6	Gmet_2429	
hypothetical protein		4.6	Gmet_0282	
phospholipase D superfamily protein		4.6	Gmet_0078	
hypothetical protein		4.6	Gmet_1081	
methyl-accepting chemotaxis sensory				
transducer, class 34H	mcp34H-3	4.6	Gmet_2423	
peptide ABC transporter, ATP-binding protein		4.6	Gmet_0847	
succinate dehydrogenase/fumarate				
reductase, type E, iron-sulfur protein	sdhB	4.6	Gmet_0309	
ferredoxin and NADH nitroreductase domain protein		4.6	Gmet_2995	
exopolysaccharide synthesis membrane protein H				
(exosortase)		4.6	Gmet_1448	
hypothetical protein		4.6	Gmet_2856	
chorismate synthase	aroC	4.6	Gmet_0976	
cytochrome c		4.6	Gmet_2470	
NUDIX hydrolase, MutT family		4.6	Gmet_1790	
lipoprotein, putative		4.6	Gmet_3015	
nitrogenase molybdenum-iron cofactor biosynthesis				
radical SAM domain iron-sulfur cluster-binding				
oxidoreductase		4.6	Gmet_0681	
hypothetical protein		4.6	Gmet_2957	
thiol reductant ABC exporter, ATP-binding				
protein CydC	cydC	4.6	Gmet_2633	
indolepyruvate:ferredoxin oxidoreductase,				
beta subunit	iorB-2	4.6	Gmet_0949	
3'-to-5' exonuclease, putative		4.6	Gmet_3055	
hypothetical protein		4.6	Gmet_0693	
protein of unknown function, PhnB-like family		4.6	Gmet_2483	
membrane protein, putative		4.6	Gmet_2381	
hypothetical protein		4.6	Gmet_3593	
Holliday junction DNA helicase RuvA	ruvA	4.6	Gmet_0745	
sensor histidine kinase		4.6	Gmet_3474	
heterodisulfide oxidoreductase, iron-sulfur				
cluster-binding subunit G	hdrG	4.6	Gmet_3427	
p-hydroxybenzaldehyde dehydrogenase,				
putative	pcmO	4.6	Gmet_2131	
helix-turn-helix transcriptional regulator, LysR family		4.6	Gmet_1084	
sensor histidine kinase response regulator, Cache_2 and				
HAMP domain-containing		4.6	Gmet_0077	

benzoysuccinyl-CoA thiolase subunit	bbsB	4.6	Gmet_1529
exodeoxyribonuclease VII, large subunit	xseA	4.6	Gmet_1848
efflux pump, RND family, inner membrane protein		4.6	Gmet_3509
succinyl-CoA synthetase, beta subunit	sucC-2	4.6	Gmet_2069
succinate dehydrogenase/fumarate			
reductase, type E, CCG domain pair subunit	sdhE	4.5	Gmet_0310
protein of unknown function DUF2062		4.5	Gmet_3130
hypothetical protein		4.5	Gmet_1470
ATP-dependent DNA helicase PcrA	pcrA	4.5	Gmet_0089
glutaryl-CoA dehydrogenase	bamM	4.5	Gmet_2075
helix-turn-helix transcriptional regulator, putative		4.5	Gmet_3086
hypothetical protein		4.5	Gmet_0050
hypothetical protein		4.5	Gmet_1937
type VI secretion system ATPase and inner			
membrane protein TssM	tssM	4.5	Gmet_0274
isovaleryl-CoA dehydrogenase		4.5	Gmet_3289
hypothetical protein		4.5	Gmet_0079
ATPase, AAA_5 family		4.5	Gmet_0108
methyl viologen-reducing hydrogenase			
maturation protease	mvhP	4.5	Gmet_3323
O-acetyl-L-homoserine sulfhydrylase	metY-2	4.5	Gmet_0819
molybdopterin--molybdenum ligase	moeA-3	4.5	Gmet_1804
hypothetical protein		4.5	Gmet_3299
hypothetical protein		4.5	Gmet_0560
hypothetical protein		4.5	Gmet_0102
ABC transporter, ATP-binding/membrane protein		4.5	Gmet_3423
transposase, IS256 family		4.5	Gmet_3341
membrane protein UPF0324		4.5	Gmet_0187
type VI secretion system protein TssF	tssF	4.5	Gmet_3313
nitrogen fixation transcript antitermination			
sensor histidine kinase	gnfK	4.5	Gmet_0696
sigma-54-dependent transcriptional			
response regulator	bamW	4.5	Gmet_2145
radical SAM domain iron-sulfur cluster-binding			
oxidoreductase		4.5	Gmet_0587
methyl-accepting chemotaxis sensory			
transducer	mvhV	4.5	Gmet_3324
phosphoribosylaminoimidazolecarboxamide			
formyltransferase and IMP cyclohydrolase	purH	4.5	Gmet_2905
periplasmically oriented, membrane-bound			
formate dehydrogenase, cytochrome b			
subunit	fdnl	4.5	Gmet_1061
hypothetical protein		4.5	Gmet_3273
thiolase		4.5	Gmet_2058
thiamin biosynthesis thiocarboxylate			
synthase	thiF-2	4.5	Gmet_1568
HEAT-like repeat-containing protein		4.5	Gmet_2816

malonyl-CoA O-methyltransferase	bioC	4.5	Gmet_0844
sulfate ABC transporter, membrane protein			
CysU	cysU	4.5	Gmet_1905
cytochrome c		4.4	Gmet_0580
NHL repeat domain protein		4.4	Gmet_0556
rubrerythrin		4.4	Gmet_0667
hypothetical protein		4.4	Gmet_1484
hypothetical protein		4.4	Gmet_0244
periplasmically oriented, membrane-bound			
formate dehydrogenase, iron-sulfur cluster-binding subunit	fdnH	4.4	Gmet_1060
ammonium transporter	amtB	4.4	Gmet_0695
hypothetical protein		4.4	Gmet_0793
hypothetical protein		4.4	Gmet_2691
radical SAM domain iron-sulfur cluster-binding oxidoreductase, putative		4.4	Gmet_2664
glycosyltransferase, YqgM-like family		4.4	Gmet_1496
protein of unknown function, coenzyme A-binding and coenzyme A ligase domain-containing		4.4	Gmet_0306
helix-turn-helix XRE domain protein		4.4	Gmet_3164
aromatic hydrocarbon degradation ATPase		4.4	Gmet_1537
acyl-CoA--acetate/3-oxoacid coenzyme A transferase, subunit B	atoA	4.4	Gmet_3297
Delta-1-pyrroline-5-carboxylate reductase	proC	4.4	Gmet_0899
sensor histidine kinase, PAS domain-containing		4.4	Gmet_0500
polyferredoxin, putative benzoyl-CoA reductase electron transfer protein	bamE	4.4	Gmet_2084
periplasmically oriented, membrane-bound formate dehydrogenase, major subunit, selenocysteine-containing	fdnG	4.4	Gmet_1059
enoyl-CoA hydratase/isomerase		4.4	Gmet_2057
protein glutamate methyltransferase CheB associated with MCPs of class 34H, response receiver domain-containing	cheB34H	4.4	Gmet_2418
cyclic nucleotide-binding domain protein		4.4	Gmet_1532
scaffold protein CheW associated with MCPs of class 40H	cheW40H-5	4.4	Gmet_2708
short-chain acyl-CoA dehydrogenase		4.4	Gmet_3306
tRNA pseudouridine 13 synthase	truD	4.4	Gmet_3033
hypothetical protein		4.4	Gmet_1723
DNA repair protein RecO	recO	4.4	Gmet_2943
enoyl-CoA hydratase/isomerase		4.4	Gmet_2071
ATP-dependent DNA helicase RecQ	recQ	4.4	Gmet_2717
nitrogenase molybdenum-iron cofactor biosynthesis protein NifEN	nifEN	4.4	Gmet_0669
thiamin biosynthesis thiocarboxylate synthase	thiF-1	4.4	Gmet_2855

p-cresol methylhydroxylase, alpha-prime subunit	pcml	4.4	Gmet_2125
flagellar biogenesis protein FliQ	fliQ	4.4	Gmet_3096
type VI secretion system DUF2094 and ImpA-related domain protein		4.4	Gmet_0275
electron transfer flavoprotein, alpha subunit		4.4	Gmet_2152
hypothetical protein		4.4	Gmet_1479
succinyl:benzoate coenzyme A transferase		4.4	Gmet_3304
hypothetical protein		4.4	Gmet_2513
nickel ABC transporter, ATP-binding protein	nikO	4.4	Gmet_2439
protein of unknown function DUF2169		4.4	Gmet_0291
succinyl:benzoate coenzyme A transferase		4.4	Gmet_2054
hypothetical protein		4.3	Gmet_3322
hypothetical protein		4.3	Gmet_0489
protein glutamate methyltransferase CheR associated with MCPs of class 40H, TPR domain-containing	cheR40H-2	4.3	Gmet_2707
hypothetical protein		4.3	Gmet_1464
methyl-accepting chemotaxis sensory transducer, class 40H	mcp40H-13	4.3	Gmet_2828
oxidoreductase, short-chain dehydrogenase/reductase family		4.3	Gmet_2059
methyl viologen-reducing hydrogenase-associated ferredoxin	mvhF	4.3	Gmet_3321
methyl-accepting chemotaxis sensory transducer, class 34H-related protein	mcp34H-1	4.3	Gmet_2430
glycyl-tRNA synthetase, beta subunit	glyS	4.3	Gmet_2941
hydrolase or acyltransferase, alpha/beta fold family		4.3	Gmet_0263
membrane protein of unknown function DUF606		4.3	Gmet_2636
biopolymer transport membrane protein, TolR-related protein		4.3	Gmet_1460
glycosyltransferase		4.3	Gmet_1495
enoyl-CoA hydratase/isomerase		4.3	Gmet_3291
hypothetical protein		4.3	Gmet_0596
tRNA (N6-dimethylallyl-A37)-dimethylallyltransferase	miaA	4.3	Gmet_2052
menaquinol oxidoreductase complex Cbc4, iron-sulfur cluster-binding subunit, putative	cbcT-2	4.3	Gmet_0326
hypothetical protein		4.3	Gmet_2148
hypothetical protein		4.3	Gmet_1423
protein glutamate methyltransferase CheR associated with MCPs of class 34H	cheR34H	4.3	Gmet_2420
iron-sulfur cluster-binding oxidoreductase	yccM-2	4.3	Gmet_0297
oxidoreductase, short-chain dehydrogenase/reductase family	pcmM	4.3	Gmet_2129
methyl viologen-reducing hydrogenase, large subunit	mvhL	4.3	Gmet_3320

ABC transporter, periplasmic substrate-binding protein		4.3	Gmet_2736
metal-dependent phosphohydrolase, HDc domain-containing		4.3	Gmet_1620
zinc metalloendopeptidase, M23 family		4.3	Gmet_1681
hypothetical protein		4.3	Gmet_3648
5-carboxyamino-1-(5-phosphoribosyl)imidazole carboxymutase	purE	4.3	Gmet_2903
hypothetical protein		4.3	Gmet_3617
sulfate ABC transporter, membrane protein			
CysW	cysW	4.3	Gmet_1904
SAM-dependent methyltransferase, type 11		4.3	Gmet_2958
polysaccharide chain length determinant protein		4.2	Gmet_1446
Ech-hydrogenase-related complex, HyfE-like			
integral membrane subunit	ehrC-2	4.2	Gmet_0373
response receiver CheY associated with MCPs of class 34H	cheY34H-1	4.2	Gmet_2428
Holliday junction DNA helicase RuvB	rvB	4.2	Gmet_0746
membrane protein, UPF0118 superfamily		4.2	Gmet_2774
D-fructose 6-kinase	mak	4.2	Gmet_2805
sigma-54-dependent transcriptional regulator		4.2	Gmet_0088
protein glutamate methyltransferase CheB			
associated with MCPs of classes 40H and 40+24H, response receiver domain-containing	cheB64H-2	4.2	Gmet_2826
lipoprotein, putative		4.2	Gmet_1455
acetyltransferase, putative	bamK	4.2	Gmet_2077
protein of unknown function YrdA, isoleucine patch superfamily of carbonic anhydrases/acetyltransferases	yrdA	4.2	Gmet_3545
hypothetical protein		4.2	Gmet_3632
hypothetical protein		4.2	Gmet_2144
protein of unknown function DUF485		4.2	Gmet_3287
acyl-CoA--acetate/3-oxoacid coenzyme A transferase, subunit A	atoD	4.2	Gmet_3296
menaquinol oxidoreductase complex, iron-sulfur cluster-binding subunit	pcmE	4.2	Gmet_2121
ABC transporter, membrane protein	ybhS-1	4.2	Gmet_0656
Ech-hydrogenase-related complex, NuoH-like integral membrane subunit	ehrB-2	4.2	Gmet_0374
redox-active protein, putative		4.2	Gmet_1456
DNA protection single-strand-binding protein DprA	dprA	4.2	Gmet_0890
16S rRNA (3-methyl-U1498)-methyltransferase	rsmE	4.2	Gmet_3387
hypothetical protein		4.2	Gmet_1136
hypothetical protein		4.2	Gmet_2605
sensor diguanylate cyclase/phosphodiesterase, PAS, PAS		4.2	Gmet_3085

and PAS domain-containing				
thiamin biosynthesis sulfur carrier protein	thiS-2	4.2	Gmet_1567	
DnaJ-related protein		4.2	Gmet_1933	
hypothetical protein		4.2	Gmet_1482	
hypothetical protein		4.2	Gmet_3451	
m multicopper oxidase, manganese oxidase family, repeat-containing		4.2	Gmet_2165	
hypothetical protein		4.1	Gmet_2516	
HPP family protein		4.1	Gmet_0299	
hypothetical protein		4.1	Gmet_3397	
hypothetical protein		4.1	Gmet_3295	
FAD-dependent oxidoreductase	pcmB	4.1	Gmet_2118	
p-cresol transport outer membrane protein, putative	pcmK	4.1	Gmet_2127	
hypothetical protein		4.1	Gmet_0095	
8-amino-7-oxononanoate synthase	bioF	4.1	Gmet_0842	
phosphoribosylamine--glycine ligase	purD	4.1	Gmet_2904	
methyl-accepting chemotaxis sensory transducer, class 36H, Cache_2 domain-containing	mcp36H	4.1	Gmet_1078	
SAM-dependent methyltransferase, type 11 response receiver CheY associated with MCPs of classes 40H and 40+24H	cheY64H-2	4.1	Gmet_1806	
pentapeptide repeat domain protein		4.1	Gmet_2827	
diguanylate cyclase		4.1	Gmet_3546	
hypothetical protein		4.1	Gmet_0840	
efflux pump, RND family, outer membrane protein		4.1	Gmet_3270	
hypothetical protein		4.1	Gmet_3507	
hypothetical protein		4.1	Gmet_0718	
response receiver CheY	cheY-4	4.1	Gmet_1471	
ankyrin repeat protein		4.1	Gmet_1607	
protein of unknown function UPF0261		4.1	Gmet_2662	
outer membrane protein		4.1	Gmet_2103	
carbon monoxide dehydrogenase, catalytic subunit	cooS	4.1	Gmet_1457	
serine protease, subtilase family		4.1	Gmet_1902	
hypothetical protein		4.1	Gmet_0749	
hypothetical protein		4.1	Gmet_2660	
scaffold protein CheW associated with MCPs of class 36H	cheW36H	4.1	Gmet_2795	
benzoyl-CoA reductase electron transfer protein, putative	bamH	4.1	Gmet_1079	
m multicopper oxidase, type 2		4.1	Gmet_2080	
phosphate ABC transporter, membrane protein PstA	pstA	4.0	Gmet_2154	
sodium/anion symporter, putative		4.0	Gmet_2703	
		4.0	Gmet_2857	

ABC transporter, ATP-binding protein		4.0	Gmet_0013
hypothetical protein		4.0	Gmet_2130
adenosylcobinamide-phosphate synthase	cbiB	4.0	Gmet_0486
protein tyrosine/serine phosphatase		4.0	Gmet_0085
hypothetical protein		4.0	Gmet_1120
hypothetical protein		4.0	Gmet_0535
transposase, IS110 family		4.0	Gmet_2794
sensor histidine kinase CheA associated			
with MCPs of class 36H	cheA36H	4.0	Gmet_1080
filamentous hemagglutinin-like outer membrane protein		4.0	Gmet_1458
hypothetical protein		4.0	Gmet_1465
phenylphosphate synthase, gamma subunit		4.0	Gmet_2104
type II secretion system minor pseudopilin			
GspH	gspH	4.0	Gmet_3368
carboxynorspermidine/carboxyspermidine			
decarboxylase	nspC	4.0	Gmet_0903
sulfate ABC transporter, periplasmic sulfate-			
binding protein	cysP	4.0	Gmet_1906
3-methylcrotonyl-CoA carboxylase, biotin-			
containing alpha subunit	mccA	4.0	Gmet_3292
cytochrome c		4.0	Gmet_1191
homocitrate synthase	nifV	4.0	Gmet_0692
hypothetical protein		3.9	Gmet_3506
periplasmically oriented, membrane-bound			
[NiFe]-hydrogenase maturation protease	hyaP	3.9	Gmet_3329
formate dehydrogenase accessory protein FdhD and			
molybdopterin nucleotidyltransferase		3.9	Gmet_1062
(R)-benzylsuccinate synthase, gamma			
subunit	bssC	3.9	Gmet_1540
oxidoreductase, short-chain dehydrogenase/reductase			
family		3.9	Gmet_0361
hypothetical protein		3.9	Gmet_3303
thiol reductant ABC exporter, ATP-binding			
protein CydD	cydD	3.9	Gmet_2634
serine protease inhibitor, Kunitz family		3.9	Gmet_2665
benzoyl-CoA reductase electron transfer			
protein, putative	bamG	3.9	Gmet_2081
hypothetical protein		3.9	Gmet_3625
winged helix-turn-helix transcriptional regulator, MarR			
family		3.9	Gmet_0359
protein of unknown function DUF296		3.9	Gmet_0490
hypothetical protein		3.9	Gmet_1805
protein glutamine deamidase and protein			
glutamate methyl esterase CheD associated			
with MCPs of class 36H	ched36H	3.9	Gmet_1076
hypothetical protein		3.9	Gmet_3637
glutamine--fructose-6-phosphate	glmS-2	3.9	Gmet_1487

aminotransferase				
ATP-dependent helicase HrpB	hrpB	3.9	Gmet_1349	
3-hydroxy-3-methylglutaryl-CoA lyase		3.9	Gmet_3293	
hypothetical protein with twin-arginine translocation pathway signal		3.9	Gmet_2124	
O-methylpimelyl-(acyl carrier protein)				
methylesterase	bioH	3.9	Gmet_0843	
electron transfer flavoprotein, alpha subunit	etfA-2	3.9	Gmet_2066	
succinyl-CoA synthetase, alpha subunit	sucD-2	3.8	Gmet_2068	
O-acetyl-L-homoserine sulfhydrylase	metY-3	3.8	Gmet_1566	
lipoprotein, putative		3.8	Gmet_1299	
cyclohexa-1,5-dienecarbonyl-CoA hydratase	bamR	3.8	Gmet_2150	
succinate dehydrogenase/fumarate reductase, type E, flavoprotein subunit	sdhA	3.8	Gmet_0308	
hypothetical protein		3.8	Gmet_1463	
hypothetical protein		3.8	Gmet_3590	
type VI secretion system protein TssG	tssG	3.8	Gmet_3314	
NrdH-like redox domain protein, YruB family, DUF4124-containing		3.8	Gmet_2959	
sulfate ABC transporter, ATP-binding protein	cysA	3.8	Gmet_1903	
hypothetical protein		3.7	Gmet_2997	
ribosomal protein L11 methyltransferase	prmA	3.7	Gmet_3386	
metal-dependent hydrolase superfamily protein		3.7	Gmet_0087	
peptidase, M48 family		3.7	Gmet_0096	
3-methylcrotonyl-CoA carboxylase, beta subunit	mccB	3.7	Gmet_3290	
hypothetical protein		3.7	Gmet_0360	
L-threonine aldolase, low-specificity	ItaE	3.7	Gmet_3503	
NUDIX hydrolase, MutT family		3.7	Gmet_1170	
membrane protein, FUSC domain-containing, putative		3.6	Gmet_2060	
hypothetical protein		3.6	Gmet_3609	
hypothetical protein		3.6	Gmet_1454	
hypothetical protein		3.6	Gmet_3582	
hypothetical protein		3.6	Gmet_3600	
UDP-glucose/UDP-N-acetylglucosamine 4-epimerase	galE-2	3.6	Gmet_1486	
hypothetical protein		3.6	Gmet_3631	
electron transfer flavoprotein, beta subunit	etfB-2	3.6	Gmet_2067	
antitoxin, XRE family		3.6	Gmet_3001	
SAM-dependent methyltransferase, putative		3.6	Gmet_2663	
protein phosphoaspartate phosphatase				
CheX associated with MCPs of class 40H	cheX40H	3.6	Gmet_0184	
6-oxocyclohex-1-ene-1-carbonyl-CoA hydratase	bamA	3.5	Gmet_2088	
hypothetical protein		3.5	Gmet_0313	

dehydratase, NodN/MaoC domain-containing, putative [acyl-]glycerolphosphate acyltransferase and acyl-(acyl carrier protein) ligase, major facilitator superfamily domain-containing		3.5	Gmet_0180
phosphatidylserine decarboxylase, putative hypothetical protein		3.5	Gmet_0086
3-hydroxyacyl-CoA dehydrogenase acetyltransferase, GNAT family		3.4	Gmet_1483
translation initiation factor-related protein YciH	yciH	3.4	Gmet_1096
hypothetical protein		3.4	Gmet_2072
tRNA (adenosine-34) deaminase scaffold protein CheW associated with MCPs of classes 40H and 40+24H	tadA	3.4	Gmet_0682
DprA/Smf-related protein, family 2		3.3	Gmet_2806
amidophosphoribosyltransferase, putative bacterial SH3 domain lipoprotein, putative ADP-ribosyl-(nitrogenase)-activating glycohydrolase	draG	3.3	Gmet_3639
chromate transport protein ChrA, subunit 2, putative lipoprotein, putative hypothetical protein thiolase		3.3	Gmet_1466
type VI secretion system inner membrane protein TssL	tssL	3.3	Gmet_3524
menaquinol oxidoreductase complex Cbc4, cytochrome c subunit	cbsC-2	3.2	Gmet_3317
transposase of ISGme8, IS110 family		3.2	Gmet_2804
lipoprotein, putative electron transfer flavoprotein, beta subunit	bamS	3.2	Gmet_3333
	etfB-3	3.1	Gmet_3316
		3.0	Gmet_0680
		2.8	Gmet_2731
		2.8	Gmet_3510
		2.7	Gmet_0717
		2.7	Gmet_3302
		2.6	Gmet_0273
		2.6	Gmet_0325
		2.4	Gmet_1143
		2.3	Gmet_2149
		0.6	Gmet_2258