

**Fuzhuan brick tea ameliorates hepatic steatosis and steatohepatitis by gut
microbiota-derived aryl hydrocarbon receptor ligands in high-fat diet-induced
obese mice**

Dongmin Liu^{a, b}, Siyu Wang^a, Yaqing Liu^a, Yong Luo^{b, c}, Beibei Wen^{b, c}, Wenliang Wu^{b, d}, Hongliang
Zeng^e, Jianan Huang^{b, c, *}, Zhonghua Liu^{b, c, *}

^aChangsha University of Science & Technology, Changsha 410114, China

^b Key Laboratory of Ministry of Education for Tea Science, Hunan Agricultural University, Changsha
410128, China

^cNational Research Center of Engineering Technology for Utilization of Botanical Functional Ingredients,
Changsha 410128, China

^dTea Research Institute, Hunan Academy of Agricultural Sciences, Changsha 410125, China

^eResearch Institute of Chinese Medicine, Hunan Academy of Chinese Medicine, Changsha, Hunan
410013, China

* Corresponding authors.

E-mail addresses: jian7513@sina.com (J. Huang), larkin-liu@163.com (Z. Liu).

Supplementary Tables

Supplementary Table 1. Tentatively Identified Compounds in the FBT Through MS/MS and/ or Authentic Standards.

No.	Identified Components	Formula	Observed m/z	Mass error (mDa)	Observed RT (min)	Adducts	Response
1	Quercetin 3-O-Rha-galactoside	C16H14O9	349.0573	0.8	4.43	-H	3336879
2	Quercetin-3-O-robinobioside	C16H14O9	349.0573	0.8	4.43	-H	3336879
3	Aspartic acid	C27H30O15	593.1511	-0.1	4.54	-H	630209
4	4,4'-methylenebis[1,2,3-benzenetriol]	C27H30O15	593.1511	-0.1	4.54	-H	630209
5	Nonanal	C27H30O15	593.1511	-0.1	4.54	-H	630209
6	Phytol	C26H28O14	609.1461	0	5.7	+HCOO	624295
7	EA-gallate-(4 β →6)-ECG	C26H28O14	609.1461	0	5.62	+HCOO	565018
8	(-)-EGC 3-O-(3-O-Me)-gallate	C27H30O16	609.1461	0	5.62	-H	565018
9	(-)-EGC 3-O-cinnamate	C27H30O16	609.1461	0	5.62	-H	565018
10	Sinapic acid	C27H30O16	609.1461	0	5.62	-H	565018
11	Homoveratric acid	C27H30O16	609.1461	0	5.62	-H	565018
12	Ferulic acid	C26H28O14	609.1461	0	5.62	+HCOO	565018
13	Isoferulic acid	C26H28O14	609.1461	0	5.62	+HCOO	565018
14	Isoschaftoside	C27H30O14	577.1561	-0.2	5.61	-H	520384
15	Taxifolin	C27H30O14	577.1561	-0.2	5.61	-H	520384
16	2-phenylpropanal	C41H44O21	871.2306	0.3	9.34	-H	481241
17	(7R, 8S)dihydrodehydrodiconiferyl alcohol	C26H32O13	597.183	0.5	5.92	+HCOO	374447
18	2,5-Dihydroxyphenylacetic acid	C15H14O8	321.061	-0.6	3.9	-H	368771
19	Salicifoliol	C21H23NO	416.1344	-0.7	4.95	-H	308855
20	3',4',7-triOH-5-OMe-flavone-7-O- β -D-glucoside	C21H23NO	416.1344	-0.7	4.95	-H	308855
21	5"-R-ethylpyrrolidinonyl catechin	C21H23NO	416.1344	-0.7	4.95	-H	308855
22	5"-R-ethylpyrrolidinonyl EC	C21H23NO	416.1344	-0.7	4.95	-H	308855
23	5"-S-ethylpyrrolidinonyl catechin	C21H23NO	416.1344	-0.7	4.95	-H	308855
24	5"-S-ethylpyrrolidinonyl EC	C21H23NO	416.1344	-0.7	4.95	-H	308855
25	Puerin I	C21H23NO	416.1344	-0.7	4.95	-H	308855
26	Puerin II	C21H23NO	416.1344	-0.7	4.95	-H	308855
27	Catechin-7-O- β -D-glucoside	C33H40O20	755.2044	0.4	5.56	-H	280940
28	Procyanidin C1	C33H40O20	755.2044	0.4	5.56	-H	280940
29	Epitheflavic acid	C33H40O20	755.2044	0.4	5.56	-H	280940
30	Theaflavic acid	C33H40O20	755.2044	0.4	5.56	-H	280940
31	(+)-catechin-8-C- β -D-glucoside	C33H40O20	755.2044	0.4	5.56	-H	280940
32	Epicatechin 8-C-glucoside	C33H40O20	755.2044	0.4	5.56	-H	280940
33	Kaempferol-3-O-[α -L-Rha-(1→3)-(4"-O-acetyl)- β -L-Rha-(1→6)- β -D-Glc-(1→2)- β -D-Glc]	C33H40O20	755.2044	0.4	5.56	-H	280940
34	Alanine	C14H12O6	275.0553	-0.8	6.21	-H	270862

35	Benzoic acid	C14H12O6	275.0553	-0.8	6.21	-H	270862
36	(-)-EC 3-O-p-OH-benzoate	C16H14O8	333.0609	-0.7	5.32	-H	269786
37	Theaflavate B	C36H28O15	745.1418	0.8	4.45	+HCOO	246704
38	EGC-(4 β →8)-EGC	C37H30O17	745.1418	0.8	4.45	-H	246704
39	GC-(4 α →8)-catechin-3-O-gallate	C37H30O17	745.1418	0.8	4.45	-H	246704
40	Catechin-(4 α →8)-EGCG	C37H30O17	745.1418	0.8	4.45	-H	246704
41	EC-(4 β →8)-EGCG	C37H30O17	745.1418	0.8	4.45	-H	246704
42	2"-O- β -D-Glu-vitexin	C21H20O10	431.098	-0.4	5.84	-H	217441
43	(-)-Epigallocatechin	C21H20O10	431.098	-0.4	5.84	-H	217441
44	(+)-Gallocatechin	C21H20O10	431.098	-0.4	5.84	-H	217441
45	Pheophorbide A	C29H24O12	609.125	0.1	3.83	+HCOO	202365
46	Phaeophorbide B	C21H20O12	463.088	-0.2	5.86	-H	199301
47	Puerin C	C21H20O12	463.088	-0.2	5.86	-H	199301
48	Puerin E	C21H20O12	463.088	-0.2	5.86	-H	199301
49	Naphthalene	C27H30O14	577.1555	-0.8	5.71	-H	191776
50	Proline	C29H24O12	609.1252	0.2	2.48	+HCOO	186855
51	Apigenin	C33H40O20	755.2045	0.5	5.72	-H	183656
52	Trans-2-decenal	C33H40O20	755.2045	0.5	5.72	-H	183656
53	α -linolenic acid	C33H40O20	755.2045	0.5	5.72	-H	183656
54	Amelliaone B	C33H40O20	755.2045	0.5	5.72	-H	183656
55	2,6,6-Trimethylcyclohexanone	C33H40O20	755.2045	0.5	5.72	-H	183656
56	4-hydroxycoumarin	C33H40O20	755.2045	0.5	5.72	-H	183656
57	Phenylalanine	C33H40O20	755.2045	0.5	5.72	-H	183656
58	p-OH ethyl cinnamate	C37H30O17	791.1472	0.7	4.86	+HCOO	165909
59	Theasapogenol C	C37H30O17	791.1472	0.7	4.86	+HCOO	165909
60	Theophylline	C37H30O17	791.1472	0.7	4.86	+HCOO	165909
61	Benzyl β -D-glucoside	C37H30O17	791.1472	0.7	4.86	+HCOO	165909
62	8-carboxyMe-(+)-catechin Me ester	C21H23NO	416.1345	-0.6	4.62	-H	164412
63	8-Carboxymethyl-(+)- catechin methyl ester	C21H23NO	416.1345	-0.6	4.62	-H	164412
64	Theacitrinin B	C21H23NO	416.1345	-0.6	4.62	-H	164412
65	Kaempferitrin	C21H23NO	416.1345	-0.6	4.62	-H	164412
66	Kaempferol 3-O- β -D-Gal-(1→3)- α -L- Rha-(1→6)-O-D-galactoside	C21H23NO	416.1345	-0.6	4.62	-H	164412
67	Kaempferol 3-O- β -D-Gal-(1→3)- α -L- Rha-(1→6)-O-D-glucoside	C21H23NO	416.1345	-0.6	4.62	-H	164412
68	Kaempferol 3-O- β -D-Glu-(1→3)- α -L- Rha-(1→6)-O-D-glucoside	C21H23NO	416.1345	-0.6	4.62	-H	164412
69	Kaempferol-3-O-[[β -D-glucopyranosyl-(1 →3)-O-ethyl]-(1→6)-O-ethyl]	C21H23NO	416.1345	-0.6	4.62	-H	164412
70	1,3-benzenediol	C26H28O14	563.1404	-0.2	5.19	-H	159236
71	Amelliaone C	C23H20O11	471.0928	-0.5	5.44	-H	148015
72	Quercetin-3-O- α -L-Rha-(1→6)-(2-E-p- coumaroyl)- β -D-glucoside 4" O-ethyl	C28H27NO	568.1463	0.2	5.84	-H	140597
73	Theasinensin C	C28H27NO	568.1463	0.2	5.84	-H	140597
74	Theasinensin E	C28H27NO	568.1463	0.2	5.84	-H	140597

75	5"-R-ethylpyrrolidinonyl EGC	C28H27NO	568.1463	0.2	5.84	-H	140597
76	Kaempferol-3-O-[(E)-p-coumaroyl-(1→	C21H23NO	400.1397	-0.5	5.82	-H	137318
77	Quercetin-3-O-[(E)-p-coumaroyl-(1→	C21H23NO	400.1397	-0.5	5.82	-H	137318
78	3-p-coumaroyl-quinic acid	C21H23NO	400.1397	-0.5	5.82	-H	137318
79	5-p-coumaroyl-quinic acid	C21H23NO	400.1397	-0.5	5.82	-H	137318
80	Coumaroylquinic acid	C21H23NO	400.1397	-0.5	5.82	-H	137318
81	(-)-Epigallocatechin-3-O-gallate	C21H23NO	400.1397	-0.5	5.82	-H	137318
82	Gallocatechin 3-O-gallate	C21H23NO	400.1397	-0.5	5.82	-H	137318
83	gentisic acid 5-O-(6'-O-G)-β-D-glucoside	C21H23NO	400.1397	-0.5	5.82	-H	137318
84	Herbacetin	C26H32O13	551.1772	0.2	7.21	-	121986
85	(+)-Catechin 3-O-gallate	C13H16O10	331.0666	-0.5	3.54	-H	111531
86	Icariside B5	C13H16O10	331.0666	-0.5	3.54	-H	111531
87	Theasapogenol A	C13H16O10	331.0666	-0.5	3.54	-H	111531
88	Catechol	C13H16O10	331.0666	-0.5	3.54	-H	111531
89	N-ethyl-5-OH-2-pyrrolidinone	C27H30O14	623.1611	-0.7	4.34	+HCOO	110453
90	Acetonyl theacitrin A	C21H23NO	400.1395	-0.6	5.44	-H	108384
91	Teadenol A	C21H23NO	400.1395	-0.6	5.44	-H	108384
92	Teadenol B	C21H23NO	400.1395	-0.6	5.44	-H	108384
93	Epigallocatechin-(4β→8)-catechin	C21H23NO	400.1395	-0.6	5.44	-H	108384
94	1,4,6-tri-O-G-β-D-glu	C21H23NO	400.1395	-0.6	5.44	-H	108384
95	Quercetin 3-O-α-L-rhamnoside	C21H23NO	400.1395	-0.6	5.44	-H	108384
96	Biorobin	C21H23NO	400.1395	-0.6	5.44	-H	108384
97	Kaempferol 3-O-Rha-galactoside	C21H23NO	400.1395	-0.6	5.44	-H	108384
98	Trans-2,trans-4-decadienal	C26H28O14	563.1405	-0.1	5.29	-H	107050
99	Physcion	C37H30O16	729.1467	0.5	4.92	-H	103873
100	(-)-EA	C37H30O16	729.1467	0.5	4.92	-H	103873
101	1,2,6-tri-O-G-β-D-glu	C16H18O8	337.0922	-0.7	4.64	-H	92017
102	ECG-(4β→6)-EGCG	C16H18O8	337.0922	-0.7	4.64	-H	92017
103	ECG-(4β→8)-EGCG	C16H18O8	337.0922	-0.7	4.64	-H	92017
104	Procyanidin B2	C16H18O8	337.0922	-0.7	4.64	-H	92017
105	Xanthine	C15H12O5	317.0659	-0.7	4.46	+HCOO	88056
106	Puerin F	C18H26O10	447.1502	-0.6	6.2	+HCOO	87491
107	Assamicain C	C27H22O18	633.0742	0.9	4.12	-H	81712
108	8-carboxyl-(+)-catechin	C26H34O11	567.2081	-0.3	6.88	+HCOO	80258
109	4-O-caffeoyl-quinic acid	C33H40O22	787.1945	0.6	4.83	-H	72981
110	Kaempferol	C14H16O10	343.0665	-0.6	3.55	-H	68260
111	Myricetin 3-galactoside	C14H16O10	343.0665	-0.6	3.55	-H	68260
112	Myricetin 3-O-β-D-glucoside	C35H42O20	781.2203	0.7	7.14	-H	64076
113	EGCG-(4β→6)-ECG	C28H27NO	552.1508	-0.4	6.98	-H	61711
114	3',4',5-triOH-7-OMe-flavone	C28H27NO	552.1508	-0.4	6.98	-H	61711

115	3',4',7-triOH-5-OMe-flavone	C ₂₈ H ₂₇ NO	552.1508	-0.4	6.98	-H	61711
116	Neotheaflavin	C ₂₈ H ₂₇ NO	552.1508	-0.4	6.98	-H	61711
117	4,5-di-O-G-quinic acid	C ₄₁ H ₄₄ O ₂₂	887.2266	1.5	9.03	-H	60514
118	Dihydrophaseic acid	C ₃₆ H ₂₈ O ₁₆	761.1368	0.8	4.13	+HCOO	59495
119	Procyanidin B3	C ₃₆ H ₂₈ O ₁₆	761.1368	0.8	4.13	+HCOO	59495
120	Procyanidin B4	C ₃₆ H ₂₈ O ₁₆	761.1368	0.8	4.13	+HCOO	59495
121	Procyanidin B5	C ₃₆ H ₂₈ O ₁₆	761.1368	0.8	4.13	+HCOO	59495
122	Pantothenic acid	C ₃₇ H ₃₀ O ₁₈	761.1368	0.8	4.13	-H	59495
123	4-Hydroxyphenylacetic acid	C ₃₇ H ₃₀ O ₁₈	761.1368	0.8	4.13	-H	59495
124	DL-4-Chlorophenylalanine	C ₂₈ H ₂₇ NO	552.1509	-0.2	6.57	-H	57123
125	4-Ethyl-2-methoxyphenol	C ₂₈ H ₂₇ NO	552.1509	-0.2	6.57	-H	57123
126	4-Me-1,2-benzenediol	C ₂₈ H ₂₇ NO	552.1509	-0.2	6.57	-H	57123
127	Delphinidin	C ₂₈ H ₂₇ NO	552.1509	-0.2	6.57	-H	57123
128	Epidihydrophaseic acid	C ₃₆ H ₂₈ O ₁₆	761.1378	1.9	3.9	+HCOO	56429
129	EA-gallate-(4β→8)-ECG	C ₃₆ H ₂₈ O ₁₆	761.1378	1.9	3.9	+HCOO	56429
130	Quercetin 3,7-di-O-α-L-rhamnoside	C ₃₆ H ₂₈ O ₁₆	761.1378	1.9	3.9	+HCOO	56429
131	Coniferin	C ₃₆ H ₂₈ O ₁₆	761.1378	1.9	3.9	+HCOO	56429
132	(-)-EGC 3-O-(4-O-Me)-gallate	C ₃₇ H ₃₀ O ₁₈	761.1378	1.9	3.9	-H	56429
133	(-)-Epigallocatechin 3-(3-methyl-gallate)	C ₃₇ H ₃₀ O ₁₈	761.1378	1.9	3.9	-H	56429
134	2,3-diOH-1-(4-OH-3-OMe-phenyl)-	C ₃₇ H ₃₀ O ₁₈	761.1378	1.9	3.9	-H	56429
135	Amelliaone A	C ₃₇ H ₃₀ O ₁₈	761.1378	1.9	3.9	-H	56429
136	1,3-di-O-G-β-D-glu	C ₁₆ H ₁₈ O ₉	353.0871	-0.7	4.26	-H	54433
137	Vitexin-4"-O-glucoside	C ₁₆ H ₁₈ O ₉	353.0871	-0.7	4.26	-H	54433
138	3',4',5,7-tetraOH-flavone	C ₁₆ H ₁₈ O ₉	353.0871	-0.7	4.26	-H	54433
139	Linalool oxide A	C ₁₅ H ₂₂ O ₅	281.1387	-0.7	4.93	-H	53229
140	Linalool oxide B	C ₁₅ H ₂₂ O ₅	281.1387	-0.7	4.93	-H	53229
141	Linalool oxide C	C ₁₅ H ₂₂ O ₅	281.1387	-0.7	4.93	-H	53229
142	1,2-di-O-G-β-D-glu	C ₃₀ H ₂₆ O ₁₃	593.1301	0	4.02	-H	49937
143	5-caffeoyl-quinic acid	C ₃₀ H ₂₆ O ₁₃	593.13	0	3.92	-H	49827
144	Diacetyl	C ₃₀ H ₂₆ O ₁₃	593.13	0	3.92	-H	49827
145	(-)-3-OH-β-ionone	C ₃₀ H ₂₆ O ₁₃	593.13	0	3.92	-H	49827
146	2-Methylphenol	C ₃₀ H ₂₆ O ₁₃	593.13	0	3.92	-H	49827
147	Luteolin	C ₂₈ H ₂₄ O ₁₇	631.0948	0.7	4.87	-H	46985
148	Chafuroside A	C ₂₁ H ₂₃ NO	416.1347	-0.4	4.43	-H	41421
149	Chafuroside B	C ₂₁ H ₂₃ NO	416.1347	-0.4	4.43	-H	41421
150	Matairesinol	C ₂₁ H ₂₃ NO	416.1347	-0.4	4.43	-H	41421
151	Isolariciresinol	C ₂₁ H ₂₃ NO	416.1347	-0.4	4.43	-H	41421
152	Theogallinin	C ₂₁ H ₂₃ NO	416.1347	-0.4	4.43	-H	41421
153	Strictinin	C ₂₁ H ₂₃ NO	416.1347	-0.4	4.43	-H	41421
154	Puerin B	C ₂₁ H ₂₃ NO	416.1347	-0.4	4.43	-H	41421

155	(-)-EGC 3-O-caffeoate	C ₂₁ H ₂₃ NO	416.1347	-0.4	4.43	-H	41421
156	EGCG-4"-Me	C ₁₅ H ₁₂ O ₈	365.0512	-0.2	4.07	+HCOO rr	40240
157	Fuzhuanin E	C ₃₀ H ₂₆ O ₁₃	593.1298	-0.3	3.79	-H	39821
158	8-C-ascorbyl (-)-EGC 3-O-gallate	C ₄₅ H ₃₈ O ₁₈	865.1987	0.2	4.48	-H	39754
159	(2R)-2-OH-3-(2,4,6-triOH-phenyl)-1-(2,4,5-triOH-phenyl)-1-propanediol 3-O	C ₁₉ H ₃₀ O ₈	431.1918	-0.4	4.81	+HCOO rr	37436
160	Theasinensin A	C ₁₄ H ₁₂ O ₆	275.0555	-0.6	4.05	-H	35619
161	Theasinensin D	C ₁₄ H ₁₂ O ₆	275.0555	-0.6	4.05	-H	35619
162	Quercetin 3-O-Rha-(2→1)-galactoside	C ₄₅ H ₃₈ O ₁₈	865.1991	0.5	5.47	-H	33905
163	Neotheaflavin 3-gallate	C ₃₆ H ₂₈ O ₁₆	761.1374	1.4	4.45	+HCOO rr	32704
164	Isotheaflavin 3'-gallate	C ₃₆ H ₂₈ O ₁₆	761.1374	1.4	4.45	+HCOO rr	32704
165	Theaflavin-3'-gallate	C ₃₆ H ₂₈ O ₁₆	761.1374	1.4	4.45	+HCOO rr	32704
166	Theaflavin-3-gallate	C ₃₆ H ₂₈ O ₁₆	761.1374	1.4	4.45	+HCOO rr	32704
167	Prodelfinidin B-4 3'-O-gallate	C ₃₇ H ₃₀ O ₁₈	761.1374	1.4	4.45	-H	32704
168	Quercetin 3-O-Gal-rutinoside	C ₃₇ H ₃₀ O ₁₈	761.1374	1.4	4.45	-H	32704
169	Theasinensin H	C ₃₇ H ₃₀ O ₁₈	761.1374	1.4	4.45	-H	32704
170	Isoquercitrin	C ₃₇ H ₃₀ O ₁₈	761.1374	1.4	4.45	-H	32704
171	5-G-quinic acid	C ₄₂ H ₄₆ O ₂₂	901.2416	0.8	8.61	-H	32020
172	Fuzhuanin A	C ₂₇ H ₃₀ O ₁₄	623.1623	0.5	3.88	+HCOO	31426
173	Procyanidin B-2 3'-O-gallate	C ₂₇ H ₃₀ O ₁₄	623.1623	0.5	3.88	+HCOO	31426
174	Vicenin 2	C ₂₁ H ₁₈ O ₉	459.0929	-0.4	5.85	+HCOO	29525
175	Vitexin-2	C ₂₁ H ₁₈ O ₉	459.0929	-0.4	5.85	+HCOO	29525
176	Theaflagallin	C ₂₇ H ₃₀ O ₁₄	577.1556	-0.7	6.08	-H	27248
177	Kaempferol-3-O-[α-L-Rha-(1→3)-α-L-Rha-(1→3)-β-D-glucopyranoside]	C ₂₇ H ₃₀ O ₁₄	577.1556	-0.7	6.08	-H	27248
178	Astragalin	C ₁₅ H ₁₂ O ₈	365.0508	-0.6	4.62	+HCOO	26982
179	p-OH-phenethylalcohol	C ₂₀ H ₂₀ O ₁₄	483.0786	0.6	3.87	-H	25615
180	Leucine	C ₂₀ H ₂₀ O ₁₄	483.0786	0.6	3.87	-H	25615
181	Toluene	C ₂₀ H ₂₀ O ₁₄	483.0786	0.6	3.87	-H	25615
182	Theasinensin F	C ₄₂ H ₄₆ O ₂₂	901.2414	0.6	9	-H	25180
183	EGCG-(4β→8)-EGCG	C ₂₈ H ₂₇ NO	568.1462	0.2	5.95	-H	24561
184	Prodelfinidin B-2 3,3'-di-O-gallate	C ₂₈ H ₂₇ NO	568.1462	0.2	5.95	-H	24561
185	Prodelfinidin B-5 3,3'-di-O-gallate	C ₂₈ H ₂₇ NO	568.1462	0.2	5.95	-H	24561
186	(3R,9R)-3-hydroxy-7,8-dihydro-β-ionol 6-O-β-D-galactopyranoside	C ₂₈ H ₂₇ NO	568.1462	0.2	5.95	-H	24561
187	Quercetin 3-O-β-D-galactoside	C ₂₁ H ₂₀ O ₁₂	463.0876	-0.6	4.44	-H	24184
188	Quercetin 3-O-β-D-glucoside	C ₂₁ H ₂₀ O ₁₂	463.0876	-0.6	4.44	-H	24184
189	Oolongtheanin	C ₂₁ H ₂₀ O ₁₂	463.0876	-0.6	4.44	-H	24184
190	5"-S-ethylpyrrolidinonyl EGC-3-O-gallate	C ₂₁ H ₂₀ O ₁₂	463.0876	-0.6	4.44	-H	24184
191	Roseoside	C ₃₅ H ₄₂ O ₂₀	781.2205	0.9	6.76	-H	23956
192	Linalool oxide D	C ₂₄ H ₂₀ O ₁₀	467.098	-0.4	6.2	-H	21488
193	Ect-pyrrolidinone E	C ₃₇ H ₃₀ O ₁₇	745.1431	2	4.59	-H	20737
194	Ect-pyrrolidinone F	C ₃₇ H ₃₀ O ₁₇	745.1431	2	4.59	-H	20737

195	Procyanidin B-4 3'-O-gallate	C37H30O17	745.1431	2	4.59	-H	20737
196	Kaempferol 3-rhamnoside-7-rutinoside	C37H30O17	745.1431	2	4.59	-H	20737
197	Rutin	C36H28O15	745.1431	2	4.59	+HCOO	20737
198	(-)-EGC 3'-O-Me-gallate	C41H44O21	871.2311	0.8	9.03	-H	20255
199	Xanthocerin	C20H18O11	433.0776	-0.1	4.48	-H	19134
200	2,6-Dimethoxybenzoic acid	C31H28O13	607.1451	-0.6	5.13	-H	18804
201	EA 3-O-gallate-(4 β →6)-EGCG	C37H30O16	775.1515	-0.1	5.13	+HCOO	18685
202	Naringenin	C37H30O16	775.1515	-0.1	5.13	+HCOO	18685
203	Myricetin 3-(6"-galloylglucoside)	C33H40O19	785.2158	1.2	6.11	+HCOO	18520
204	Isotheaflavin	C33H40O19	785.2158	1.2	6.11	+HCOO	18520
205	Theaflavin	C33H40O19	785.2158	1.2	6.11	+HCOO	18520
206	2,2',6,6'-tetraOH-diphenyl	C20H18O11	433.0774	-0.2	3.71	-H	17929
207	Quercetin 3-O-Glu-(1→3)-Rha-(1→6)-rutinoside	C33H40O21	771.1991	0.2	4.94	-H	17152
208	Quercetin 3-O-Glu-rutinoside	C33H40O21	771.1991	0.2	4.94	-H	17152
209	Quercetin 3-O- β -D-Glu-(1→3)- α -L-Rha-(1→6)-rutinoside	C33H40O21	771.1991	0.2	4.94	-H	17152
210	Quercetin-3-O-[β -D-glucopyranosyl-(1→3)-O-Galloyl]-rutinoside	C33H40O21	771.1991	0.2	4.94	-H	17152
211	Isovitexin	C33H40O21	771.1991	0.2	4.94	-H	17152
212	(-)-EGC 3,3'-di-O-gallate	C18H18O8	407.0974	-1	4.47	+HCOO	15748
213	(-)-EGC 3,4-di-O-gallate	C18H18O8	407.0974	-1	4.47	+HCOO	15748
214	2-O-G-D-glu	C26H34O11	567.2088	0.5	5.94	+HCOO	15050
215	2,6-di-O-G- β -D-glu	C27H30O14	623.1617	-0.1	6.64	+HCOO	14703
216	3,4-diOMe-phenol	C27H30O14	623.1617	-0.1	6.64	+HCOO	14703
217	Theobromine	C20H20O14	483.0793	1.2	4.25	-H	14057
218	6,10,14-Trimethylpentadecan-2-one	C20H20O14	483.0793	1.2	4.25	-H	14057
219	(E)-Hept-2-enal	C20H20O14	483.0793	1.2	4.25	-H	14057
220	Catechin-(4 α →8)-EGC	C37H30O17	745.1413	0.3	5.08	-H	13696
221	GC-(4 α →8)-EC	C37H30O17	745.1413	0.3	5.08	-H	13696
222	(-)-EC 3,5-di-O-gallate	C37H30O17	745.1413	0.3	5.08	-H	13696
223	Apigenin-6-C-Glu-8-arabinoside	C37H30O17	745.1413	0.3	5.08	-H	13696
224	(-)-Epicatechin	C36H28O15	745.1413	0.3	5.08	+HCOO	13696
225	1,2,4-benzenetriol	C36H28O17	777.1327	1.8	4.87	+HCOO	12956
226	2-Methoxy-4-propylphenol	C21H20O11	493.0989	0.1	6.06	+HCOO	11988
227	3,5-diOH-benzoic acid	C21H20O11	493.0989	0.1	6.06	+HCOO	11988
228	Gentisic acid	C21H20O11	493.0989	0.1	6.06	+HCOO	11988
229	Indoleacrylic acid	C21H20O11	493.0989	0.1	6.06	+HCOO	11988
230	Glutaric acid	C16H12O6	345.0632	1.6	4.45	+HCOO	11777
231	2,5-Dimethylphenol	C16H12O6	345.0632	1.6	4.45	+HCOO	11777
232	Theasapogenol B	C18H18O8	361.0922	-0.7	5.15	-H	11514
233	EC-[7,8-bc]-4 α -(4-OH-phenyl)-dihydro-2,2,3-trimethyl-2H-pyran-3-ol	C18H18O8	361.0922	-0.7	5.15	-H	11514
234	Erythro-(7S,8R)-guaiacyl-glycerol- β -O-4'-dihydroxybenzyl ether	C13H14O6	265.0711	-0.6	4.45	-H	10642

235	3-Ethylphenol	C30H26O14	655.1305	0	4.1	+HCOO	9777
236	Tyrosine	C30H26O14	655.1305	0	4.1	+HCOO	9777
237	Myricetin-3-O- $[\beta$ -D-Glu-(1 \rightarrow 3)- α -L- Rha-(1 \rightarrow 6)-D-Galloyl)]	C33H40O22	787.1918	-2	4.46	-H	9589
238	Phloroglucinol	C25H24O12	515.1193	-0.2	6.32	-H	9249
239	Pyrogallol	C37H30O16	729.1474	1.3	4.73	-H	8849
240	3,4-Dihydroxyphenylvaleric acid	C37H30O16	729.1474	1.3	4.73	-H	8849
241	Gallic acid	C26H34O11	521.2029	0.1	6.49	-H	8677
242	8-carboxyMe-(+)-catechin	C30H26O13	639.1347	-0.8	4.26	+HCOO	8661
243	Ampelopsin	C30H26O13	639.1347	-0.8	4.26	+HCOO	8661
244	Eriodictyol	C30H26O13	639.1347	-0.8	4.26	+HCOO	8661
245	EC-[8,7-bc]-4 β -(4-OH-phenyl)-dihydro- 2,3,6-trihydroxybenzoic acid	C30H26O13	639.1347	-0.8	4.26	+HCOO	8661
246	Protocatechuic acid	C30H26O13	639.1347	-0.8	4.26	+HCOO	8661
247	Chlorogenic acid	C21H24O11	451.1273	2.7	3.99	-H	8469
248	Theogallin	C21H24O11	451.1273	2.7	3.99	-H	8469
249	6-O-G- β -D-glu	C21H24O11	451.1273	2.7	3.99	-H	8469
250	Kaempferol 3-O- α -L-rhamnopyranoside	C29H22O15	609.0879	-0.7	5.82	-H	8416
251	Ethyl propanoate	C29H22O15	609.0879	-0.7	5.82	-H	8416
252	Theacitrin B	C20H16O9	399.0712	-0.9	4.46	-H	8292
253	Ect-pyrrolidinone J	C20H16O9	399.0712	-0.9	4.46	-H	8292
254	Delphinidin-3-O- β -D-(6-(E)-p- coumaroyl)-galactoside	C30H27O14	610.1346	1.8	4.45	-H	8126
255	Delphinidin-3-O- β -D-(6-(E)-p- coumaroyl)-glucoside	C30H27O14	610.1346	1.8	4.45	-H	8126
256	3,4,5-Trimethoxybenzaldehyde	C21H20O4	495.0789	0.9	4	-	7913
257	Digallic acid	C21H20O4	495.0789	0.9	4	-	7913
258	Theaflavin 3,3'-digallate	C21H24O11	451.1265	1.9	4.12	-H	7898
259	3,4-Dimethoxybenzoic acid	C21H24O11	451.1265	1.9	4.12	-H	7898
260	3,5-dimethoxybenzoic acid	C21H24O11	451.1265	1.9	4.12	-H	7898
261	Puerin VI	C38H32O16	743.1602	-1.6	6.21	-H	7559
262	Quercetin 4'-O- α -L-Rha-3-O- α -L-Rha-(1 - \rightarrow 6)-D-Galloyl)]	C13H14O5	249.0776	0.8	4.45	-H	7529
263	Prodelphinidin B-2 3'-O-gallate	C26H30O14	565.1559	-0.4	4.62	-H	7092
264	(R)-6-oxo-4-((2R,3R)-3,5,7- trihydroxyflavan-2-yl)-2,6-dihydroxy- benzoic acid	C27H30O17	625.1387	-2.3	4.81	-H	6930
265	Theaflavanside I	C26H30O14	565.1571	0.9	4.45	-H	6884
266	Fuzhuanin F	C20H24O6	359.1495	-0.5	8.3	-H	6822
267	Theasinensin G	C20H20O13	513.0881	-0.5	3.75	+HCOO	6752
268	Puerin IV	C18H18O8	407.0984	0	4.61	+HCOO	6506
269	Fuzhuanin B	C18H18O8	407.0984	0	4.61	+HCOO	6506
270	(-)-EGC 3-O-p-coumaroate	C22H18O12	473.0735	0.9	3.99	-H	6482
271	Phenylacetaldehyde	C21H16O10	473.0735	0.9	3.99	+HCOO	6482
272	Syringic acid	C21H16O10	473.0735	0.9	3.99	+HCOO	6482
273	Tiliroside	C30H26O14	655.1318	1.3	4.46	+HCOO	6358
274	Myricetin-3-O-rutinoside	C30H26O14	655.1318	1.3	4.46	+HCOO	6358

275	Puerin VIII	C30H26O14	655.1318	1.3	4.46	+HCOO	6358
276	(-)-EC 3-O-(3-O-Me)-gallate	C30H26O14	655.1318	1.3	4.46	+HCOO	6358
277	3,5-dicaffeoyl-quinic acid	C36H28O17	731.1267	1.3	6.23	-H	6125
278	Epitheaflagallin	C37H30O17	791.1494	2.9	5.32	+HCOO	6067
279	Fuzhuanin C	C37H30O17	791.1494	2.9	5.32	+HCOO	6067
280	Prodelphinidin B-4	C37H30O17	791.1494	2.9	5.32	+HCOO	6067
281	Theacitrin A	C37H30O17	791.1494	2.9	5.32	+HCOO	6067
282	Morin	C20H20O13	467.0831	0	4.27	-H	5724
283	Myricitrin	C33H40O22	787.1936	-0.3	4.97	-H	5722
284	5"-R-ethylpyrrolidinonyl EGC-3-O-	C37H28O18	759.1228	2.5	5.47	-H	5601
285	Ect-pyrrolidinone A	C37H28O18	759.1228	2.5	5.47	-H	5601
286	Dehydrotheasinensin H	C37H28O18	759.1228	2.5	5.47	-H	5601
287	5"-R-ethylpyrrolidinonyl EC-3-O-gallate	C37H28O18	759.1228	2.5	5.47	-H	5601
288	Kaempferol 3-O-rutinoside	C37H28O18	759.1228	2.5	5.47	-H	5601
289	(E)-2-Octenal	C37H30O16	775.1506	-1	6.47	+HCOO	5248
290	PuerinD	C37H30O16	775.1506	-1	6.47	+HCOO	5248
291	Chakanoside II	C36H28O17	731.1277	2.3	5.1	-H	5217
292	3',4'-Dihydroxyphenylalanine	C19H28O10	461.1671	0.6	5.09	+HCOO	5213
293	Kaempferol 3-O-β-D-galactoside	C26H32O11	519.1864	-0.8	6.66	-H	5199
294	5"-S-ethylpyrrolidinonyl GC	C17H16O8	393.0824	-0.3	4.46	+HCOO	5189
295	Puerin V	C17H16O8	393.0824	-0.3	4.46	+HCOO	5189
296	(-)-pinoresinol	C22H18O11	503.0851	2	4.44	+HCOO	5016
297	Phenethylalcohol β-D-xylosyl (1→6)-β-D-	C22H18O11	503.0851	2	4.44	+HCOO	5016
298	Ect-pyrrolidinone B	C18H26O10	401.1449	-0.4	4.45	-H	5008
299	Procyanidin B-2 3,3'-di-O-gallate	C15H14O8	367.0689	1.8	3.74	+HCOO	4861
300	des-G theaflavonin	C36H32O20	783.1416	0.2	4.46	-H	4828
301	Afzelin	C21H20O10	477.104	0.1	4.44	+HCOO	4625
302	Vitexin	C21H20O10	477.104	0.1	4.44	+HCOO	4625
303	Theasinensin B	C21H20O10	477.104	0.1	4.44	+HCOO	4625
304	Kaempferol-3-O-[α-L-Rha-(1→3)-α-L-	C38H32O16	743.1591	-2.6	4.3	-H	4592
305	Ellagic acid	C21H20O10	477.1034	-0.4	6.95	+HCOO	4580
306	2-(4-OH-phenyl)ethyl β-D-glucoside	C33H40O19	785.2123	-2.3	6.25	+HCOO	4521
307	Caffeic acid	C33H40O19	785.2123	-2.3	6.25	+HCOO	4521
308	m-Coumaric acid	C33H40O19	785.2123	-2.3	6.25	+HCOO	4521
309	Nicotiflorin	C33H40O19	739.21	0.9	5.49	-H	4511
310	1-O-G-β-D-glu	C33H40O19	739.21	0.9	5.49	-H	4511
311	β-glucogallin	C33H40O19	739.21	0.9	5.49	-H	4511
312	Pinoresinol-4'-O-β-D-glucoside	C22H24O8	415.1397	-0.2	7.74	-H	4392
313	Vanillic acid	C29H22O14	639.1002	1	4.6	+HCOO	4380
314	Cinchonain Ib	C37H30O16	775.1519	0.3	5.8	+HCOO	4364

315	EC-[8,7-bc]-4β-(3,4-diOH-phenyl)- dihydro-2(1H)-pyridinone	C37H30O16	775.1519	0.3	5.8	+HCOO	4364
316	Icariside	C20H24O6	405.1544	-1.1	5.83	+HCOO	4361
317	6-carboxyl(-)-GC	C22H22O11	461.1102	1.3	6.2	-H	4273
318	3α,5α-diOH-caffeoylquinic acid	C27H24O18	635.089	0	4.3	-H	4260
319	p-coumaric acid	C27H24O18	635.089	0	4.3	-H	4260
320	5"-R-ethylpyrrolidinonyl GC	C37H28O18	759.1218	1.5	4.6	-H	4140
321	5"-S-ethylpyrrolidinonyl EGC	C37H28O18	759.1218	1.5	4.6	-H	4140
322	Epitheaflavic acid 3'-gallate	C37H28O18	759.1218	1.5	4.6	-H	4140
323	4-p-coumaroyl-quinic acid	C37H28O18	759.1218	1.5	4.6	-H	4140
324	Epitheaflagallin 3-O-gallate	C37H28O18	759.1218	1.5	4.6	-H	4140
325	Talienbisflavan A	C36H28O17	731.1261	0.7	4.61	-H	4120
326	desG theasinensin F	C36H32O20	783.1441	2.7	3.83	-H	4098
327	Emodin	C21H20O11	493.0996	0.8	3.71	+HCOO	3995
328	Malic acid	C21H20O11	493.0996	0.8	3.71	+HCOO	3995
329	3-Hydroxybenzoic acid	C21H20O11	493.0996	0.8	3.71	+HCOO	3995
330	Salicylic acid	C21H20O11	493.0996	0.8	3.71	+HCOO	3995
331	Teasperin	C38H32O16	789.1652	-2.1	5.06	+HCOO	3877
332	Asiaticalin	C20H20O13	467.0811	-2	4.08	-H	3835
333	Prodelphinidin B	C16H16O8	335.0788	1.5	4.45	-H	3824
334	Benzene	C15H14O6	335.0788	1.5	4.45	+HCOO	3824
335	Hexanal	C15H14O6	335.0788	1.5	4.45	+HCOO	3824
336	Fuzhuanin D	C36H28O17	777.133	2.1	5.33	+HCOO	3822
337	Planchol A	C21H16O10	427.0665	-0.5	5.46	-H	3666
338	Teasperol	C21H16O10	427.0665	-0.5	5.46	-H	3666
339	Shikimic acid	C43H32O19	897.1529	1	6.37	+HCOO	3662
340	Pyrophaeophorbide A	C44H34O21	897.1529	1	6.37	-H	3662
341	Deoxythymidine	C44H34O21	897.1529	1	6.37	-H	3662
342	4'-Hydroxyacetophenone	C44H34O21	897.1529	1	6.37	-H	3662
343	Gentisate aldehyde	C13H14O5	295.0842	1.9	4.96	+HCOO	3589
344	Prodelphinidin A2 3'-gallate	C45H36O20	895.1757	3	5.1	-H	3581
345	Caffeine	C31H28O13	653.1523	1.2	5.16	+HCOO	3547
346	Kaempferol-3-O-[[β-D-glucopyranosyl]- (1→3)-O-4-O-methylrhamnosyl-(1→6)-O-	C37H28O18	759.1219	1.6	4.81	-H	3401
347	Puerin III	C37H28O18	759.1219	1.6	4.81	-H	3401
348	Theaflavate A	C37H28O18	759.1219	1.6	4.81	-H	3401
349	Catechin	C37H28O18	759.1219	1.6	4.81	-H	3401
350	p-OH-acetophenone	C37H28O18	759.1219	1.6	4.81	-H	3401
351	6-Carboxymethyl(-)-gallocatechin	C36H32O20	783.1436	2.2	4.94	-H	3256
352	(-)-EA 3-O-gallate	C20H20O13	513.0883	-0.3	3.72	+HCOO	3212
353	Uracil	C44H34O19	911.1706	2.9	6.95	+HCOO	3205
354	3R,9R-oxido-5-megastigmene	C44H34O19	911.1706	2.9	6.95	+HCOO	3205

355	Quercetin 3-arabinopyranoside	C25H24O12	561.1244	-0.6	4.96	+HCOO	3116
356	(-)-EC 3-O-(4-O-Me)-gallate	C30H26O13	639.1329	-2.6	5.08	+HCOO	3022
357	Salicylaldehyde	C30H26O13	639.1329	-2.6	5.08	+HCOO	3022
358	Piperitone	C30H26O13	639.1329	-2.6	5.08	+HCOO	3022
359	2,5-Dimethylhexanal	C30H26O13	639.1329	-2.6	5.08	+HCOO	3022
360	Fangchengbisflavan B	C27H30O17	671.1478	1.3	4.6	+HCOO	3000
361	Procyanidin B-5 3,3'-di-O-gallate	C36H28O17	777.1325	1.7	5.94	+HCOO	2890
362	(-)-EGC 3,5-di-O-gallate	C18H18O8	361.0936	0.7	4.26	-H	2834
363	(±)-GC-3,5-di-O-gallate	C18H18O8	361.0936	0.7	4.26	-H	2834
364	Quercetin	C16H20O7	323.1166	2.9	5.44	-H	2801
365	Hypoxanthine	C44H34O20	881.1579	0.8	7.33	-H	2789
366	Theasapogenol E	C36H28O15	699.1381	2.5	5.55	-H	2693
367	Fangchengbisflavan A	C21H20O12	509.0961	2.5	4.61	+HCOO	2672
368	gallic acid 3-O-(6'-O-G)-β-D-glucoside	C21H20O12	509.0961	2.5	4.61	+HCOO	2672
369	3,4-di-O-G-quinic acid	C21H20O12	509.0961	2.5	4.61	+HCOO	2672
370	(-)-Epicatechin 3-O-gallate	C21H20O12	509.0961	2.5	4.61	+HCOO	2672
371	Amelliaone E	C26H32O11	519.1875	0.3	7.45	-H	2669
372	3-(4-Hydroxyphenyl)propionic acid	C22H18O12	519.0777	-0.3	4.08	+HCOO	2653
373	Myricetin	C27H30O15	639.1561	-0.6	5.01	+HCOO	2644
374	EC-3-O-benzoate	C27H30O15	639.1561	-0.6	5.01	+HCOO	2644
375	Quinic acid	C27H30O15	639.1561	-0.6	5.01	+HCOO	2644
376	(-)-EC 3-O-p-coumaroate	C27H30O15	639.1561	-0.6	5.01	+HCOO	2644
377	Puerin A	C27H30O15	639.1561	-0.6	5.01	+HCOO	2644
378	Lirioresinol A	C27H30O15	639.1561	-0.6	5.01	+HCOO	2644
379	Lactic acid	C27H30O15	639.1561	-0.6	5.01	+HCOO	2644
380	2-Hexenal	C27H30O15	639.1561	-0.6	5.01	+HCOO	2644
381	Coumarin	C22H24O8	415.1403	0.5	6.98	-H	2578
382	Theanine	C14H14O6	323.0765	-0.7	4.06	+HCOO	2560
383	Me 3,4,5-triOH-benzoate	C14H14O6	323.0765	-0.7	4.06	+HCOO	2560
384	Cinnamic acid	C21H20O14	495.0795	1.5	5.46	-H	2228
385	Ethyl 4-(sulfooxy)benzoate	C21H20O14	495.0795	1.5	5.46	-H	2228
386	6-carboxyMe-(+)-catechin	C45H36O20	895.1741	1.3	5.34	-H	2216
387	Kaempferol-3-O-β-D-Glu-(1→3)-O-α-L- Rha-(1→6)-O-C-D-Galactoside	C23H20O10	501.1039	0	4.46	+HCOO	2181
388	Benzyl 2-neohesperidosyloxy-6-OH- D-glucopyranoside	C23H20O10	501.1039	0	4.46	+HCOO	2181
389	5-(3,8-diOH-1,5-diMe-6- O-Me)-flavan-3-ol	C28H20O14	579.0803	2.3	8.28	-H	2034
390	Amelliaone D	C28H20O14	579.0803	2.3	8.28	-H	2034
391	Kaempferol 7-galactoside 3-rutinoside	C30H27O14	656.1376	-0.7	3.98	+HCOO	1980
392	Vitexin-2"-α-L-rhamnoside	C30H27O14	656.1376	-0.7	3.98	+HCOO	1980
393	Assamicain A	C36H32O21	799.1381	1.8	5.2	-H	1980
394	Puerin VII	C42H46O22	947.2492	2.9	6.47	+HCOO	1921

395	1,3-di-O-G-4,6-(S)-HHDP-β-D-glu	C24H20O10	513.1047	0.9	4.61	+HCOO	1856
396	Chicoric acid	C36H28O15	699.1366	1.1	6.07	-H	1785
397	1,6-di-O-G-β-D-glu	C20H22O6	357.1363	1.9	5.83	-H	1628
398	Aminosalicyclic Acid	C20H22O6	357.1363	1.9	5.83	-H	1628
399	2-Phenyl-2-butenal	C30H26O13	639.1372	1.6	8.63	+HCOO	1535
400	Assamicain B	C28H20O14	625.0848	1.3	5.81	+HCOO	1402
401	8-oxocaffeine	C28H20O14	625.0848	1.3	5.81	+HCOO	1402
402	1,2-di-O-G-4,6-(S)-HHDP-β-D-glu	C14H14O6	323.0766	-0.6	3.76	+HCOO	1288
403	Bis(8-epicatechiny)-methane	C14H14O6	323.0766	-0.6	3.76	+HCOO	1288
404	Benzylalcohol β-D-xyl-(1→6)-β-D- -glucoside	C16H20O7	369.1218	2.7	4.46	+HCOO	1200
405	Symplicosigenol	C15H14O8	367.0681	1	3.66	+HCOO	1152
406	1-(2-Hydroxy-5- methoxymethyl)-methanone	C16H18O8	383.096	-2.4	4.84	+HCOO	1131
407	N-(2-OH-phenyl)-2-pyrrolidinone	C16H18O8	383.096	-2.4	4.84	+HCOO	1131
408	5,7-diOH-coumarin	C16H18O8	383.096	-2.4	4.84	+HCOO	1131
409	Ethylbenzene	C16H18O8	383.096	-2.4	4.84	+HCOO	1131
410	γ-Aminobutyric acid	C16H22O8	387.1323	2.6	4.09	+HCOO	958
411	Ascorbic acid	C26H32O11	565.1936	1	6.88	+HCOO	949
412	Kaempferol-7-O-α-L-Rha-3-O-β-D- -glucoside	C19H28O10	461.1693	2.9	4.26	+HCOO	809
413	7-Me-xanthine	C19H28O10	461.1693	2.9	4.26	+HCOO	809

Supplementary Table 2. Primer sequences for qRT-PCR analysis, related to Figure 6, 8

Genes	Forward Primer Sequence	Reverse Primer Sequence
<i>AhR</i>	ACCGGCTGAACACAGAGTTA	CCATTCAGCGCCATCAAAGA
<i>Cyp1a1</i>	CAGGCTGACTCTGAACTTGC	AGACCAAGAGCTGATGCAGT
<i>Pemt</i>	AGCAGAGAACTCGGAAGCTG	CCAGGAAGTAGGTGGTGTGG
<i>Fasn</i>	TCGGGTGTGGTGGGTTTGGT	GCCGTGAGATGTGTTGCTGAGG
<i>SREBP-1c</i>	AACCTCATCCGCCACCTGCT	ATGGTAGACAACAGCCGCATCC
<i>ACC-α</i>	TTCACTGTGGCTTCTCCAGC	GACCACCGACGGATAGATCG
<i>PPAR-γ</i>	AGCTCCAAGAATACCAAAGTGCGAT	AGGTTCTTCATGAGGCCTGTTGTAGA
<i>PPAR-α</i>	TTGAAGGAGCTTTGGGAAGA	AGGAAGCCGTTCTGTGACAT
<i>TNF-α</i>	CGGGCAGGTCTACTTTGGAG	CAGGTCACTGTCCCAGCATC
<i>IL-6</i>	CTGCAAGTGCATCATCGTTGT	CACTCACAAGTCGGAGGCT
<i>IL-1β</i>	GGTGTGTGACGTTCCCATTA	ATTGAGGTGGAGAGCTTTCAG
<i>β-actin</i>	GCTGTCCCTGTATGCCTCTG	TGATGTCACGCACGATTTC

Supplementary Table 3. Relative abundance of cecal microbiota in CD, HFD, and FBT groups

Microbiota	Relative abundance (%)		
	CD	HFD	FBT
	Phylum		
Firmicutes	0.594705	0.632083	0.594705
Bacteroidetes	0.234763	0.185192	0.234763
Deferribacteres	0.070418	0.084047	0.070418
Actinobacteria	0.086591	0.043718	0.086591
Ascomycota	0.009706	0.032271	0.009706
Proteobacteria	0.003181	0.021909	0.003181
Basidiomycota	0.000197	0.000374	main
Spirochaetes	0.000232	0.000224	0.000232
Synergistetes	7.76E-05	9.66E-05	7.76E-05
unclassified	9.48E-05	3.27E-05	9.48E-05
Deinococcus-Thermus	6.59E-06	2.31E-05	6.59E-06
Verrucomicrobia	4.80E-06	7.68E-07	4.80E-06
Cyanobacteria	8.73E-06	5.45E-06	8.73E-06
Chloroflexi	2.97E-06	9.77E-06	2.97E-06
Candidatus_Saccharibacteria	5.32E-06	2.88E-06	5.32E-06
Fibrobacteres	1.84E-06	4.72E-06	1.84E-06
Tenericutes	1.03E-06	1.56E-06	1.03E-06
Mucoromycota	7.55E-07	5.7E-07	7.55E-07
Thermodesulfobacteria	1.48E-06	5.72E-07	1.48E-06
Euryarchaeota	4.38E-07	1.14E-06	4.38E-07
Fusobacteria	0	0	0
Planctomycetes	0	0	0
Chrysiogenetes	4.75E-07	0	4.75E-07

Armatimonadetes	0	5.04E-07	0
Genera			
Dubosiella	0.263408	0.129452	0.013894
Bacteroides	0.155345	0.14677	0.12413
Lactobacillus	0.086526	0.049008	0.196164
Mucispirillum	0.070418	0.084047	0.136883
Eubacterium	0.065518	0.097616	0.100368
Faecalibaculum	5.96E-06	0.119794	0.040603
Parabacteroides	0.066875	0.02953	0.04267
unclassified	0.025436	0.039286	0.042033
Lachnospirillum	0.025505	0.040106	0.040575
Acutalibacter	0.022676	0.035202	0.040127
Corynebacterium	0.064809	0.016345	0.004431
Debaryomyces	0.008835	0.030771	0.047606
Enterorhabdus	0.014326	0.023124	0.007646
Staphylococcus	0.021779	0.003735	0.013367
Blautia	0.008921	0.012723	0.012523
Escherichia	0.002099	0.010946	0.016408
Lactonifactor	0.004531	0.006982	0.007057
Lactococcus	0.004506	0.006262	0.005999
Clostridioides	0.003952	0.006899	0.005678
Anaerotignum	0.003767	0.005547	0.006737
Other	0.080763	0.105855	0.095102

Species			
Dubosiella_newyorkensis	0.263408	0.129452	0.263408
Mucispirillum_schaedleri	0.070418	0.084047	0.070418
Bacteroides_thetaiotaomicron	0.098619	0.094354	0.098619
Eubacterium_plexicaudatum	0.064362	0.096313	0.064362
Lactobacillus_johnsonii	0.063908	0.018098	0.063908
Faecalibaculum_rodentium	5.96E-06	0.119794	5.96E-06
Parabacteroides_goldsteinii	0.06548	0.028824	0.06548
Bacteroides_caecimuris	0.04431	0.032873	0.04431
Acutalibacter_muris	0.022676	0.035202	0.022676
Debaryomyces_hansenii	0.008291	0.029243	0.008291
Lactobacillus_reuteri	0.018535	0.006866	0.018535
Corynebacterium_stationis	0.051764	0.007023	0.051764
Hungateiclostridiaceae_bacterium_KB18	0.015079	0.025818	0.015079
Lachnospirillum_sp._YL32	0.014096	0.021365	0.014096
Lactobacillus_murinus	0.002345	0.020169	0.002345
Escherichia_coli	0.002099	0.010933	0.002099
Enterorhabdus_caecimuris	0.008702	0.014371	0.008702
Corynebacterium_glutamicum	0.010749	0.008905	0.010749
Staphylococcus_sciuri	0.014896	0.001412	0.014896

Lactonifactor_longoviformis	0.004531	0.006982	0.004531
Other	0.155726	0.207955	0.155726

Note: The microbiota in the cecum of mice were shown at the Phylum, Genera, and Species levels, respectively.

Supplementary Table 4. Contents of Trp metabolites in cecal contents of mice showing differences between HFD and FBT groups

Metabolites	Contents (ng/g)			P value*		Effect of FBT	HFD vs. CD		FBT vs. HFD	
	CD	HFD	FBT	HFD vs. CD	FBT vs. HFD		Trend	Fold change	Trend	Fold change
2-Aminobenzoicacid	294.00	491.40	238.80	0.023	0.006	★	↑*	1.67	↓**	0.49
5-Hydroxyindoleacetic acid	103.90	134.90	57.62	0.511	0.016	☆	↑	1.30	↓*	0.43
5-Hydroxytryptophol	33.43	22.88	30.46	0.179	0.418		↓	0.68	↑	1.33
Indole-3-β-acrylic acid	10.30	5.11	8.67	0.059	0.004	☆	↓	0.50	↑**	1.70
Indole-3-aceticacid	295.00	210.60	260.80	0.312	0.041	☆	↓	0.71	↑*	1.24
Indole-3-carbaldehyde	571.50	229.80	225.00	0.004	0.998		↓**	0.40	↓	0.98
Tryptophol	21.10	12.90	8.64	0.030	0.346		↓*	0.61	↓	0.67
Indole-3-lactic acid	41.52	18.06	14.27	0.366	0.974		↓	0.43	↓	0.79
Indolylpropionic acid	372.83	173.80	271.60	0.001	0.009	★	↓**	0.47	↑*	1.56
Kynurenic acid	119.93	62.96	77.28	0.032	0.028	★	↓*	0.52	↑*	1.23
L-kynurenine	57.85	56.68	22.26	0.996	0.004		↓	0.98	↓**	0.39
L-tryptophan	11765.00	12560.00	11840.00	0.828	0.868		↑	1.07	↓	0.94
N-acetylserotonin(Melatonin)	7.94	6.82	5.54	0.726	0.686		↓	0.86	↓	0.81
N-formylkynurenine	107.73	116.64	120.72	0.845	0.032		↑	1.08	↑*	1.03
Picolinic acid	781.50	335.40	217.96	0.340	0.928		↓	0.43	↓	0.65
Xanthurenic acid	137.22	222.20	201.60	0.453	0.956		↑	1.62	↓	0.91
3-Hydroxyanthranilic acid	24.55	67.96	24.90	0.000	0.000	★	↑**	2.77	↓**	0.37

Note: Trend ↑, ↓ denote that the metabolite content increased and decreased, respectively. * denotes that the difference is significant ($p < 0.05$), **denotes that the difference is highly significant ($p < 0.01$), and *** denotes that the difference is highly significant ($p < 0.001$).The metabolites significantly increased in group FBT or significantly decreased in group HFD, in which different changes of metabolites exist in FBT and CD groups compared with group HFD, are shown in red; On the contrary, the metabolites are shown in green; The metabolites significantly increased in group FBT while significantly decreased in group HFD are shown in red with "★". On the contrary, the metabolites are shown in green with "★". The metabolites shown in red or green towards or beyond the levels in group CD are signed

with "☆". Other metabolites that had no significant changes are shown in grey.

*P values were calculated using Tukey's HSD test. Significant P values (< 0.05) are shown in yellow.

Supplementary Table 5. Differences in the abundance of KEGG Orthologs (KOs), KEGG Pathways, Enzymes, and microbial distribution of gut microbiota genes in different groups.

Pathway in KEGG	KO	A	Distribution of microbes	FBT	HFD	CD		
K01696	trpB			31.815	47.177	52.173		
			<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.0498	8.548	8.2338		
			<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.3372	0.9354	2.4737		
			<i>g_Escherichia.s_Escherichia_coli</i>	0.534	0.2566	0		
			<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.1626	0		
			<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.5856	0.9806	1.1485		
			<i>g_Parabacteroides.s_Parabacteroides_goldsteinii</i>	3.096	2.5282	6.1493		
			<i>g_Proteus.s_Proteus_mirabilis</i>	0.0286	0.0888	0		
			<i>g_Staphylococcus.s_Staphylococcus_xylosum</i>	0.6532	0.506	0.2772		
			<i>g_Streptococcus.s_Streptococcus_thermophilus</i> unclassified	0.4508 20.08	0.5542 32.617	0.76 33.13		
K01626	E2.5.1.54, aroF, aroG, aroH			27.127	25.528	37.25		
			<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	1.112	1.6147		
			<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.112	1.353	2.2442		
			<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	8.7804	6.2456	3.5137		
			<i>g_Escherichia.s_Escherichia_coli</i>	1.5134	1.4396	0.1195		
			<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.0692	0		
			<i>g_Lactococcus.s_Lactococcus_lactis</i>	1.3562	0.87	0.8307		
			<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0.0434	0.1436	0.0907		
			<i>g_Proteus.s_Proteus_mirabilis</i> unclassified	0.063 15.258	0.0944 14.201	0 28.837		
		K06001	trpB			31.432	26.858	27.358
	<i>g_Alistipes.s_Alistipes_shahii</i>			0	0.5904	0.2633		
	<i>g_Parabacteroides.s_Parabacteroides_goldsteinii</i>			3.3598	3.3782	6.2953		
	unclassified			28.073	22.889	20.799		
K00891	E2.7.1.71, aroK, aroL			15.004	32.774	29.524		
			<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.4958	0.0633		
			<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	7.7996	11.57	11.47		
			<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	3.4654	10.205	6.0993		
			<i>g_Escherichia.s_Escherichia_coli</i>	0.786	1.004	0.2067		
			<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.3844	0		
			<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.5702	1.4076	0.9482		
			<i>g_Streptococcus.s_Streptococcus_thermophilus</i> unclassified	0.6622 1.7202	0.9092 6.7974	0.3375 10.399		
K00014	aroE			15.523	24.639	31.492		
			<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	0.8418	0.4803		
			<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.5336	0.5717		
			<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.9276	10.015	11.122		
			<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.2758	3.186	5.988		
			<i>g_Escherichia.s_Escherichia_coli</i>	1.1284	0.4262	0		
			<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.8528	0		
			<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.7732	0.7414	0.7762		
			<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0.1142	0	0		
			<i>g_Proteus.s_Proteus_mirabilis</i>	0.0882	0	0		
			<i>g_Streptococcus.s_Streptococcus_thermophilus</i> unclassified	0.489 5.7266	0.456 7.5854	0.544 12.009		
		K00817	hisC			10.362	21.133	38.168
					<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	0.6328	1.7332
	<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>			5.15	9.6132	9.0522		
	<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>			0.239	2.5102	3.9158		

	g_Debaryomyces.s_Debaryomyces_hansenii	2.7528	2.2212	0.829
	g_Escherichia.s_Escherichia_coli	0.4908	0.2128	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1496	0
	g_Lactococcus.s_Lactococcus_lactis	0.2114	0.266	0.4857
	g_Lactococcus.s_Lactococcus_raffinolactis	0.0314	0	0
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.061	0.2146	0.1582
	g_Proteus.s_Proteus_mirabilis	0	0.091	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.033	0.425	0.3153
	unclassified	1.3926	4.7966	21.678
trpD		14.494	25.95	30.123
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.449	8.8304	8.8435
	g_Bacteroides.s_Bacteroides_uniformis	0	4.564	0
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1188	0.891	2.1113
	g_Debaryomyces.s_Debaryomyces_hansenii	2.9198	2.3314	0.7245
	g_Lactococcus.s_Lactococcus_lactis	0.4876	1.126	0.7537
	g_Lactococcus.s_Lactococcus_raffinolactis	0.033	0.075	0.1985
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1218	0	0.1763
	g_Proteus.s_Proteus_mirabilis	0.0702	0.035	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.6346	0.7968	0.5298
	unclassified	4.6596	7.301	16.785
aspB		16.262	20.156	32.255
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	8.6694	10.529	12.25
	g_Parabacteroides.s_Parabacteroides_goldsteinii	3.3664	2.4702	6.2143
	unclassified	4.226	7.1572	13.791
trpE		14.646	20.234	29.475
	g_Aerococcus.s_Aerococcus_viridans	0.027	0.86	1.4242
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.1888	7.735	7.7562
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.0758	1.3506	2.1222
	g_Debaryomyces.s_Debaryomyces_hansenii	3.039	2.2476	1.3235
	g_Escherichia.s_Escherichia_coli	0.2474	0.2034	0.0188
	g_Lactococcus.s_Lactococcus_lactis	0.6	0.3788	0.437
	g_Lactococcus.s_Lactococcus_raffinolactis	0.023	0.0772	0.0695
	g_Parabacteroides.s_Parabacteroides_goldsteinii	2.6832	2.4706	5.8285
	g_Streptococcus.s_Streptococcus_thermophilus	0.4648	0.4914	0.5732
	unclassified	2.2968	4.4196	9.9212
trpA		11.536	16.922	26.959
	g_Aerococcus.s_Aerococcus_viridans	0	0.2162	0.0855
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.5262	7.362	8.5285
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.209	1.8398	2.5397
	g_Escherichia.s_Escherichia_coli	0.5918	0.4888	0.0808
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.269	0
	g_Lactococcus.s_Lactococcus_lactis	0.8568	0.8524	0.4255
	g_Lactococcus.s_Lactococcus_raffinolactis	0.1064	0.0558	0.0975
	g_Streptococcus.s_Streptococcus_thermophilus	0.264	0.5784	0.6127
	unclassified	2.9816	5.2604	14.589
K03856 AROA2, aroA		7.5588	20.011	20.643
	g_Aerococcus.s_Aerococcus_viridans	0	0.9816	0.8027
	g_Enterorhabdus.s_Enterorhabdus_caecimuris	2.8806	13.808	12.295
	unclassified	4.6782	5.2212	7.5453
aroB		9.1962	14.598	21.387
	g_Alistipes.s_Alistipes_shahii	0	0.8806	0.1652
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.155	8.1184	9.5947
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1186	1.0514	1.947
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0376	0.0573
	g_Escherichia.s_Escherichia_coli	0.6352	0.6206	0.0283

	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.415	0
	g_Lactococcus.s_Lactococcus_lactis	1.263	1.1992	0.6968
	g_Lactococcus.s_Lactococcus_raffinolactis	0	0.076	0.0318
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1458	0.1414	0.1327
	g_Proteus.s_Proteus_mirabilis	0.0946	0	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.572	0.1738	0.821
	unclassified	1.212	1.8848	7.912
E1.3.1.12		8.8542	21.322	15.615
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.0638	9.4488	9.6993
	g_Bacteroides.s_Bacteroides_uniformis	0	7.5008	0
	unclassified	2.7906	4.3728	5.9155
trpC		9.1382	13.945	17.925
	g_Aerococcus.s_Aerococcus_viridans	0	1.1548	0.6358
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.163	8.2264	9.525
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1206	1.5994	2.5383
	g_Lactococcus.s_Lactococcus_lactis	0.8968	1.0024	0.3797
	g_Lactococcus.s_Lactococcus_raffinolactis	0	0	0.0472
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1488	0.1452	0.0468
	g_Streptococcus.s_Streptococcus_thermophilus	0.4208	0.5076	0.6962
	unclassified	0.3884	1.3092	4.0555
K01817 trpF		9.1348	10.554	16.658
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.2536	7.5238	9.2983
	g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.1326	0.1436	0.7915
	g_Deбaryomyces.s_Deбaryomyces_hansenii	2.7146	1.964	0.9167
	g_Lactobacillus.s_Lactobacillus_helveticus	0.136	0	0
	g_Lactococcus.s_Lactococcus_lactis	0.4476	0.2736	0.7335
	g_Lactococcus.s_Lactococcus_raffinolactis	0.0816	0.0744	0.1248
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.306	0.07	0
	unclassified	0.0632	0.5046	4.7927
K01736 aroC		7.6754	8.8698	14.194
map00400_	g_Aerococcus.s_Aerococcus_viridans	0	0.6458	1.3542
Phenylalani	g_Alistipes.s_Alistipes_shahii	0	0.3938	0.1445
ne, tyrosine	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1324	1.3988	2.105
and	g_Deбaryomyces.s_Deбaryomyces_hansenii	3.3638	2.1054	0.9215
tryptophan	g_Enterococcus.s_Enterococcus_faecalis	0	0	0.0262
biosynthesis	g_Escherichia.s_Escherichia_coli	0.3512	0.1898	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3258	0
	g_Lactococcus.s_Lactococcus_lactis	0.5388	0.9412	0.9163
	g_Lactococcus.s_Lactococcus_raffinolactis	0.1108	0	0.056
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1428	0.1596	0.2258
	g_Proteus.s_Proteus_mirabilis	0.0318	0	0
	g_Staphylococcus.s_Staphylococcus_xylosus	0.8332	0.2028	0.175
	g_Streptococcus.s_Streptococcus_thermophilus	0.4592	0.46	0.5353
	unclassified	1.7116	2.0468	7.7342
pheA2		3.9556	4.8302	18.516
	g_Alistipes.s_Alistipes_shahii	0	0.3216	0.296
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.0446	1.0672	2.3065
	g_Deбaryomyces.s_Deбaryomyces_hansenii	3.114	2.0346	1.0438
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0528	0
	g_Lactococcus.s_Lactococcus_lactis	0.7554	1.014	0.449
	g_Lactococcus.s_Lactococcus_raffinolactis	0.0416	0.0976	0
	unclassified	0	0.2424	14.421

	aroQ, qutE		4.6158	7.4694	9.6697
	g__Alistipes.s__Alistipes_shahii		0	0.734	0.1898
	g__Corynebacterium.s__Corynebacterium_glutamicum		0	0.9028	2.8365
	g__Debaryomyces.s__Debaryomyces_hansenii		2.8666	1.3988	1.3445
	g__Escherichia.s__Escherichia_coli		0	0.8452	0
	g__Klebsiella.s__Klebsiella_pneumoniae		0	0.098	0
	g__Proteus.s__Proteus_mirabilis		0	0.1184	0
	unclassified		1.7494	3.3722	5.299
	aroA		2.614	4.825	11.958
	g__Aerococcus.s__Aerococcus_viridans		0.0626	0.9858	0.659
	g__Alistipes.s__Alistipes_shahii		0	0.362	0.1883
	g__Corynebacterium.s__Corynebacterium_glutamicum		0.11	1.3176	2.3
	g__Enterococcus.s__Enterococcus_faecalis		0	0	0.0235
	g__Escherichia.s__Escherichia_coli		0.5662	0.2878	0
	g__Klebsiella.s__Klebsiella_pneumoniae		0	0.1304	0
	g__Lactobacillus.s__Lactobacillus_delbrueckii		0.1806	0.174	0.3768
	g__Lactococcus.s__Lactococcus_lactis		0.649	0.8184	0.6213
	g__Lactococcus.s__Lactococcus_raffinolactis		0.025	0.0308	0.047
	g__Leuconostoc.s__Leuconostoc_mesenteroides		0.0332	0.0574	0.1488
	g__Proteus.s__Proteus_mirabilis		0	0.0244	0
	g__Streptococcus.s__Streptococcus_thermophilus		0.3562	0.384	0.4647
	unclassified		0.6312	0.2524	7.1278
K04516	ARO1, aK04516		0.9422	11.055	3.1383
	g__Aerococcus.s__Aerococcus_viridans		0	0	0.5737
	g__Alistipes.s__Alistipes_shahii		0	0.2144	0.1523
	g__Bacteroides.s__Bacteroides_uniformis		0	7.7084	0
	g__Lactococcus.s__Lactococcus_lactis		0	1.0724	0
	g__Streptococcus.s__Streptococcus_thermophilus		0	0.464	0.2362
	K04516unclassified		0.9422	1.596	2.176
K04517	tyrA2	K04517	2.181	2.8336	8.2035
	g__Alistipes.s__Alistipes_shahii		0	0.7744	0.0863
	g__Enterococcus.s__Enterococcus_faecalis		0	0	0.0562
	g__Lactococcus.s__Lactococcus_lactis		0.97	0.4756	0.7765
	g__Lactococcus.s__Lactococcus_raffinolactis		0	0.0366	0.0917
	g__Leuconostoc.s__Leuconostoc_mesenteroides		0.1274	0.2388	0.1822
	g__Streptococcus.s__Streptococcus_thermophilus		0.7526	0.6024	0.5577
	K04517unclassified		0.331	0.7058	6.453
K13498	trpCF	K13498	0.7562	1.6804	8.952
	g__Corynebacterium.s__Corynebacterium_glutamicum		0.116	1.3292	2.5003
	g__Escherichia.s__Escherichia_coli		0.6402	0.2772	0.0462
	g__Proteus.s__Proteus_mirabilis		0	0.0738	0
	K13498unclassified		0	0	6.4053
K14454	GOT1	K14454	5.5876	4.6712	1.592
	g__Debaryomyces.s__Debaryomyces_hansenii		5.5876	4.6712	1.592
K01658	trpG	K01658	0.6626	3.963	6.0403
	g__Aerococcus.s__Aerococcus_viridans		0	0.4232	0.5008
	g__Corynebacterium.s__Corynebacterium_glutamicum		0	2.5478	2.0985
	g__Lactococcus.s__Lactococcus_lactis		0.4008	0.3558	0.5083
	g__Streptococcus.s__Streptococcus_thermophilus		0.2618	0.6362	0.3972
	K01658unclassified		0	0	2.5353

K03785	aroD	K03785	1.5392	3.657	2.254
		g__Aerococcus.s__Aerococcus_viridans	0	1.4014	1.0797
		g__Enterococcus.s__Enterococcus_faecalis	0	0.2008	0
		g__Escherichia.s__Escherichia_coli	0.7294	0.5978	0.0507
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.4318	0
		g__Lactococcus.s__Lactococcus_lactis	0.3698	0.2426	0.7055
		g__Streptococcus.s__Streptococcus_thermophilus	0.4402	0.7824	0.4183
K09484	QUIB, qa-	K09484	3.2946	2.6692	0.9063
		g__Debaryomyces.s__Debaryomyces_hansenii	3.2946	2.6692	0.9063
K06209	pheB	K06209	1.5276	0.978	3.4633
		g__Lactobacillus.s__Lactobacillus_delbrueckii	0.0986	0.3692	0
		g__Staphylococcus.s__Staphylococcus_xylosus	0.46	0.6088	0.6692
		K06209unclassified	0.969	0	2.7943
K01656	TRP3	K01656	2.9892	2.1706	1.02
		g__Debaryomyces.s__Debaryomyces_hansenii	2.9892	2.1706	1.02
K01850	E5.4.99.5	K01850	3.0248	1.8702	1.0093
		g__Debaryomyces.s__Debaryomyces_hansenii	3.0248	1.8702	1.0093
K14455	GOT2	K14455	2.9728	1.7404	1.0493
		g__Debaryomyces.s__Debaryomyces_hansenii	2.9728	1.7404	1.0493
K00838	ARO8	K00838	3.0582	1.7656	0.9483
		g__Debaryomyces.s__Debaryomyces_hansenii	3.0582	1.7656	0.9483
K11358	yhdR	K11358	1.4092	2.0864	1.812
		K11358unclassified	1.4092	2.0864	1.812
K00211	TYR1	K00211	2.5762	1.9424	0.8172
		g__Debaryomyces.s__Debaryomyces_hansenii	2.5762	1.9424	0.8172
K04093	pheA1	K04093	0	0.3	2.0758
		K04093unclassified	0	0.3	2.0758
K13853	aroG, aroF	K13853	1.2188	0.4348	0.6207
		g__Staphylococcus.s__Staphylococcus_xylosus	0.9452	0.4348	0.444
		K13853unclassified	0.2736	0	0.1765
K14170	pheA	K14170	0.9188	1.0132	0
		g__Escherichia.s__Escherichia_coli	0.8894	0.4788	0
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.4162	0
		g__Proteus.s__Proteus_mirabilis	0.0296	0.118	0
K00813	aspC	K00813	0.8554	0.7826	0
		g__Escherichia.s__Escherichia_coli	0.741	0.5322	0
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.1834	0
		g__Proteus.s__Proteus_mirabilis	0.1146	0.067	0
K13497	trpGD	K13497	0.9528	0.2122	0.0763
		g__Escherichia.s__Escherichia_coli	0.4356	0.2122	0.0763
		K13497unclassified	0.5172	0	0
K00832	tyrB	K00832	0.3876	0.5968	0.1102
		g__Escherichia.s__Escherichia_coli	0.3876	0.2636	0.1102
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.3334	0

K05887	ydiB	K05887	0.5382	0.3806	0.1157
		g_Escherichia.s_Escherichia_coli	0.5382	0.3806	0.1157
K14187	tyrA	K14187	0.0596	0.5016	0
		g_Escherichia.s_Escherichia_coli	0.0596	0.1046	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3664	0
		g_Proteus.s_Proteus_mirabilis	0	0.0306	0
K01713	pheC	K01713	0	0.4388	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4388	0
K00626	E2.3.1.9, εK00626	K00626	71.659	38.462	61.992
		g_Aerococcus.s_Aerococcus_viridans	0	1.5938	2.1997
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2034	1.2244	2.2053
		g_Debaryomyces.s_Debaryomyces_hansenii	2.8842	2.5722	1.175
		g_Enterococcus.s_Enterococcus_faecalis	0	0.015	0
		g_Escherichia.s_Escherichia_coli	0.9256	0.633	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3738	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2302	0.2006	0.0588
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0722	0.1626	0.0592
		g_Lactobacillus.s_Lactobacillus_johnsonii	25.602	3.3042	16.588
		g_Lactobacillus.s_Lactobacillus_reuteri	9.784	1.7638	6.3277
		g_Lactococcus.s_Lactococcus_lactis	1.2286	1.3056	1.0962
		K00626unclassified	30.728	25.313	32.282
K03781	katE, CATK03781	K03781	18.302	20.684	59.173
		g_Alistipes.s_Alistipes_shahii	0	0.361	0.2728
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.1974	9.6476	9.3595
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2342	1.5258	3.7257
		g_Debaryomyces.s_Debaryomyces_hansenii	5.613	4.1308	2.1057
		g_Enterococcus.s_Enterococcus_faecalis	0	0	0.0425
		g_Proteus.s_Proteus_mirabilis	0	0.0444	0
		g_Staphylococcus.s_Staphylococcus_xylosum	1.8756	1.2384	0.7853
		K03781unclassified	3.3818	3.7354	42.882
K00382	DLD, lpd, K00382	K00382	20.384	22.183	35.255
		g_Aerococcus.s_Aerococcus_viridans	0.0282	1.1376	1.1237
		g_Alistipes.s_Alistipes_shahii	0	0.4702	0.1685
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.1822	7.1946	8.3845
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1736	1.419	2.1947
		g_Debaryomyces.s_Debaryomyces_hansenii	3.4276	2.2896	1.013
		g_Enterococcus.s_Enterococcus_faecalis	0	2.3126	0.0483
		g_Escherichia.s_Escherichia_coli	0.9426	0.9026	0.0855
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2652	0
		g_Lactobacillus.s_Lactobacillus_reuteri	6.6142	1.0754	3.6773
		g_Lactococcus.s_Lactococcus_lactis	1.1106	0.8538	0.6305
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1454	0.1552	0.1507
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0224	0	0
		g_Proteus.s_Proteus_mirabilis	0	0.0206	0
		g_Staphylococcus.s_Staphylococcus_xylosum	0.8618	0.5668	0.623
		g_Streptococcus.s_Streptococcus_thermophilus	0.5502	0.3934	0.3417
		K00382unclassified	1.3252	3.126	16.813
K01426	E3.5.1.4, εK01426	K01426	8.5404	18.224	20.424
		g_Debaryomyces.s_Debaryomyces_hansenii	3.3212	2.1144	1.1428
		g_Enterococcus.s_Enterococcus_faecalis	0.023	0.0268	0.061
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	4.3942	13.737	11.391

		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.8028	0.7966	0.5038
		K01426unclassified	0	1.5484	7.3257
K00128	ALDH	K00128	12.097	10.635	16.006
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0.028	0.5772	1.2963
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.5984	0.0972
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	10.967	8.1784	3.5058
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0394	0	0
		K00128unclassified	1.0616	1.2814	11.107
K00658	DLST, suc	K00658	9.08	11.29	14.648
map00380 Tryptophan metabolism		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	4.4042	5.9994	8.263
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.0424	0.9532	1.6438
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.8102	2.486	1.03
		<i>g_Escherichia.s_Escherichia_coli</i>	0.8768	0.2882	0.0497
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.4956	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0282	0.0524	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.7708	0.4642	0.3213
		K00658unclassified	0.1476	0.5502	3.3403
K01667	tnaA	K01667	9.4646	12.539	13.172
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.461	0.1218
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.6412	8.6954	9.004
		<i>g_Escherichia.s_Escherichia_coli</i>	0.183	0.2142	0.0243
		K01667unclassified	2.6404	3.1686	4.0212
		K01668	0	0	0.2745
		K01668unclassified	0	0	0.2745
K00252	GCDH, gc	K00252	0	1.8814	4.1343
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0	1.6702	2.4693
		K00252unclassified	0	0.2112	1.665
K01501	E3.5.5.1	K01501	3.0802	2.2116	1.0432
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	3.0802	2.2116	1.0432
K01556	KYNU, ky	K01556	2.7906	2.0804	1.301
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.7906	2.0804	1.301
K00838	ARO8	K00838	3.0582	1.7656	0.9483
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	3.0582	1.7656	0.9483
K00486	KMO	K00486	3.0524	1.7128	0.8245
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	3.0274	1.7128	0.8245
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0248	0	0
K14264	BNA3	K14264	2.7138	1.5658	1.0593
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.6894	1.5658	1.0593
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0244	0	0
K04103	ipdC	K04103	0.666	1.4318	2.8198
		<i>g_Escherichia.s_Escherichia_coli</i>	0	0.4156	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.3818	0
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.666	0.3762	0.2273
		K04103unclassified	0	0.2584	2.5922
K14263	BNA7	K14263	2.3802	1.8398	0.9617
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.3802	1.8398	0.9617

K00463	IDO, IND	K00463	2.7812	1.6016	0.7082
		g_Debaryomyces.s_Debaryomyces_hansenii	2.7812	1.6016	0.7082
K00452	HAAO	K00452	1.869	1.9226	0.9922
		g_Debaryomyces.s_Debaryomyces_hansenii	1.869	1.9226	0.9922
K01692	paaF, echA	K01692	0.2932	0.1938	2.012
		g_Escherichia.s_Escherichia_coli	0.2932	0.1938	0.0903
		K01692unclassified	0	0	1.9218
K01782	fadJ	K01782	0.3478	0.1278	0
		g_Escherichia.s_Escherichia_coli	0.2892	0.0956	0
		g_Proteus.s_Proteus_mirabilis	0.0586	0.032	0
K06131	clsA_B	K06131	88.314	45.077	81.625
		g_Aerococcus.s_Aerococcus_viridans	0	0.663	0.8388
		g_Alistipes.s_Alistipes_finegoldii	0	0.0294	0
		g_Alistipes.s_Alistipes_shahii	0	0.4566	0.1838
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	13.196	19.634	18.844
		g_Enterococcus.s_Enterococcus_faecalis	0.0682	0.0634	0
		g_Escherichia.s_Escherichia_coli	0.67	0.827	0.1658
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.6758	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.508	0.2598	0.2557
		g_Lactobacillus.s_Lactobacillus_helveticus	0.117	0.0706	0.0228
		g_Lactobacillus.s_Lactobacillus_johnsonii	48.183	7.3442	33.599
		g_Lactobacillus.s_Lactobacillus_reuteri	17.341	2.913	10.297
		g_Lactococcus.s_Lactococcus_lactis	1.0076	1.1726	0.9195
		g_Proteus.s_Proteus_mirabilis	0.0228	0	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.6412	0.5118	0.3603
		g_Streptococcus.s_Streptococcus_thermophilus	0.185	0.665	0.287
		K06131unclassified	6.3734	9.7904	15.851
K01126	E3.1.4.46,	K01126	51.848	33.236	67.232
		g_Alistipes.s_Alistipes_shahii	0	1.2402	0.5418
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.2548	7.9858	8.3635
		g_Blautia.s_Ruminococcus_torques	0	0.2258	2.3923
		g_Clostridium.s_Clostridium_sp_ASF502	0	1.5158	0.6612
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1896	2.4224	4.589
		g_Dorea.s_Dorea_sp_5_2	0.0958	2.7052	3.2473
		g_Enterococcus.s_Enterococcus_faecalis	0.036	0.1108	0.016
		g_Escherichia.s_Escherichia_coli	1.1274	0.8394	0.0733
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.234	0.2802	0.1467
		g_Lactobacillus.s_Lactobacillus_helveticus	0.2286	0.0454	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	28.182	4.2236	17.028
		g_Lactobacillus.s_Lactobacillus_reuteri	9.1068	1.4842	5.2615
		g_Lactococcus.s_Lactococcus_lactis	1.1026	1.291	0.9018
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0.0452	0
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1358	0.1506	0.261
		g_Proteus.s_Proteus_mirabilis	0.0526	0.0376	0
		K01126unclassified	5.102	8.6328	23.748
K00995	pgsA, PG	K00995	54.604	28.481	59.986
		g_Aerococcus.s_Aerococcus_viridans	0	0.6474	1.0432
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.1292	7.4632	9.5252
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2088	0.7138	1.8492
		g_Debaryomyces.s_Debaryomyces_hansenii	2.352	1.6452	0.6413
		g_Escherichia.s_Escherichia_coli	0.5864	0.334	0.133
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2116	0.2988	0.205
		g_Lactobacillus.s_Lactobacillus_johnsonii	21.08	3.65	17.066
		g_Lactobacillus.s_Lactobacillus_reuteri	5.8286	1.313	3.5797

		g_Lactococcus.s_Lactococcus_lactis	0.8592	0.591	0.7885
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0.0854	0
		K00995unclassified	18.348	11.74	25.155
K01613	psd, PISD K01613		29.798	22.153	26.703
		g_Alistipes.s_Alistipes_shahii	0	0.5322	0.3233
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.8098	8.7684	10.218
		g_Debaryomyces.s_Debaryomyces_hansenii	5.8826	3.9758	1.7333
		g_Escherichia.s_Escherichia_coli	0.0344	0.0338	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.506	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.1946	0.4816	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	10.56	1.2434	0
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0178	0	0
		g_Parabacteroides.s_Parabacteroides_goldsteinii	3.7938	2.9352	7.8928
		K01613unclassified	3.5048	3.6756	6.536
K00057	gpsA K00057		32.741	12.447	30.361
		g_Aerococcus.s_Aerococcus_viridans	0	1.074	0.7863
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0836	1.2054	2.3425
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1964	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4316	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.5346	0.9898	0.4918
		g_Lactobacillus.s_Lactobacillus_helveticus	0.044	0.085	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	20.604	3.8022	14.256
		g_Lactobacillus.s_Lactobacillus_reuteri	8.0778	1.3408	5.244
		g_Lactococcus.s_Lactococcus_lactis	0.6344	0.6876	0.7302
		g_Lactococcus.s_Lactococcus_raffinolactis	0.0862	0	0.0298
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0764	0.0414	0.264
		g_Proteus.s_Proteus_mirabilis	0	0.032	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.1938	0.2284	0.1402
		g_Streptococcus.s_Streptococcus_thermophilus	0.3832	0.9912	0.5807
		K00057unclassified	2.0244	1.341	5.495
K00981	E2.7.7.41, K00981		17.17	20.344	25.016
		g_Aerococcus.s_Aerococcus_viridans	0	1.0966	0.2458
		g_Alistipes.s_Alistipes_shahii	0	0.8362	0.4265
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.2272	9.4034	9.9072
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1508	1.459	1.6653
		g_Debaryomyces.s_Debaryomyces_hansenii	2.2532	1.5398	1.1855
		g_Escherichia.s_Escherichia_coli	0.7878	0.9512	0.2237
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.7928	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.0636	0.363	0.082
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0574	0.097	0.1195
		g_Lactobacillus.s_Lactobacillus_reuteri	5.7068	0.8142	3.4018
		g_Lactococcus.s_Lactococcus_lactis	0.564	0.9106	0.8793
		g_Lactococcus.s_Lactococcus_raffinolactis	0.131	0	0
		g_Proteus.s_Proteus_mirabilis	0.0418	0.0416	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.399	0.0988	0.1795
		K00981unclassified	0.7874	1.9396	6.7003
K00980	tagD K00980		27.353	9.6912	22.276
		g_Lactobacillus.s_Lactobacillus_johnsonii	19.603	4.0966	15.301
		g_Lactococcus.s_Lactococcus_lactis	0.4604	0.872	1.1827
		g_Staphylococcus.s_Staphylococcus_xylosus	0.682	0.868	0.239
		K00980unclassified	6.6072	3.8546	5.5532
K08591	plsY K08591		25.861	8.264	21.157
		g_Alistipes.s_Alistipes_shahii	0	0.2476	0.1083
		g_Escherichia.s_Escherichia_coli	0.7004	0.4512	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.0742	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.313	0.132	0.145
		g_Lactobacillus.s_Lactobacillus_helveticus	0	0.4224	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	16.917	3.58	13.021

			g_Lactobacillus.s_Lactobacillus_reuteri	5.7752	1.0254	3.088
			g_Lactococcus.s_Lactococcus_lactis	0.5676	0.7956	0.5643
			g_Proteus.s_Proteus_mirabilis	0.1174	0.2676	0
			g_Staphylococcus.s_Staphylococcus_xylosus	0.9912	0.5606	0.3687
			g_Streptococcus.s_Streptococcus_thermophilus	0.277	0.2702	0.7405
			K08591unclassified	0.2024	0.4366	3.1213
K01114	plc		K01114	9.2028	11.2	10.524
			K01114unclassified	9.2028	11.2	10.524
K01095	pgpA		K01095	7.7636	10.376	7.7877
			g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.0472	9.804	7.7877
			g_Escherichia.s_Escherichia_coli	0.7164	0.5718	0
K00655	plsC		K00655	9.0454	5.5046	8.4447
			g_Aerococcus.s_Aerococcus_viridans	0	0.7004	0.5685
			g_Escherichia.s_Escherichia_coli	1.1106	0.7832	0.1133
			g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4046	0
			g_Lactobacillus.s_Lactobacillus_delbrueckii	0.0822	0.064	0
			g_Lactobacillus.s_Lactobacillus_helveticus	0.064	0.0794	0.1307
			g_Lactobacillus.s_Lactobacillus_reuteri	5.6006	0.4466	2.962
			g_Lactococcus.s_Lactococcus_raffinolactis	0	0	0.0452
			g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1948	0.0736	0.1862
			g_Proteus.s_Proteus_mirabilis	0	0.1076	0
			g_Streptococcus.s_Streptococcus_thermophilus	0.5224	0.6664	0.381
			K00655unclassified	1.471	2.1788	4.058
map00564_	K17103	CHO1, ps:	K17103	7.256	6.8294	8.4938
Glycerophos			g_Alistipes.s_Alistipes_shahii	0	0.3564	0.2107
pholipid			g_Debaryomyces.s_Debaryomyces_hansenii	2.5182	2.433	1.4662
metabolism			K17103unclassified	4.7376	4.0398	6.8168
	K07029	dagK	K07029	8.2816	2.887	5.9858
			g_Lactobacillus.s_Lactobacillus_helveticus	0.0366	0.141	0
			g_Lactobacillus.s_Lactobacillus_reuteri	6.9958	1.442	4.5962
			g_Lactococcus.s_Lactococcus_lactis	0.8436	0.608	0.7198
			g_Leuconostoc.s_Leuconostoc_mesenteroides	0.156	0.1506	0.1015
			g_Staphylococcus.s_Staphylococcus_xylosus	0.2496	0.5452	0.5682
K13333	PLB		K13333	7.935	6.0332	2.5862
			g_Debaryomyces.s_Debaryomyces_hansenii	7.935	6.0332	2.5862
K00111	glpA, glpI		K00111	3.1708	3.929	6.297
			g_Escherichia.s_Escherichia_coli	1.2492	1.2856	0.155
			g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8344	0
			g_Lactococcus.s_Lactococcus_lactis	0.5672	0.6464	0.67
			g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0496	0	0
			g_Proteus.s_Proteus_mirabilis	0	0.0688	0
			g_Staphylococcus.s_Staphylococcus_xylosus	0.7594	0.4252	0.4198
			K00111unclassified	0.5454	0.6686	5.0525
K00006	GPD1		K00006	6.5314	5.0932	2.4342
			g_Debaryomyces.s_Debaryomyces_hansenii	6.5006	5.0932	2.4342
			g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0308	0	0
K13535	CLD1		K13535	5.8078	4.288	2.072
			g_Debaryomyces.s_Debaryomyces_hansenii	5.8078	4.288	2.072
K13507	GAT		K13507	5.7308	4.5508	1.7133
			g_Debaryomyces.s_Debaryomyces_hansenii	5.7	4.5508	1.7133
			g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0308	0	0
K18693	DPP1, DP		K18693	6.2078	4.174	1.5298
			g_Debaryomyces.s_Debaryomyces_hansenii	6.2078	4.174	1.5298
K03735	eutB		K03735	1.88	2.5192	2.7162
			g_Escherichia.s_Escherichia_coli	0.505	0.5666	0.0745
			g_Klebsiella.s_Klebsiella_pneumoniae	0	0.204	0
			K03735unclassified	1.3746	1.7484	2.6417
K13509	AGPAT1_		K13509	3.2258	2.6266	0.752

		g_Debaryomyces.s__Debaryomyces_hansenii	3.2258	2.6266	0.752
K00993	EPT1	K00993	3.6154	2.0704	0.7713
		g_Debaryomyces.s__Debaryomyces_hansenii	3.6154	2.0704	0.7713
K00967	PCYT2	K00967	2.6716	1.843	1.5295
		g_Debaryomyces.s__Debaryomyces_hansenii	2.6716	1.843	1.5295
K16369	CHO2	K16369	2.7998	2.2526	1.0283
		g_Debaryomyces.s__Debaryomyces_hansenii	2.7998	2.2526	1.0283
K00866	CKI1	K00866	2.9202	1.9302	1.0773
		g_Debaryomyces.s__Debaryomyces_hansenii	2.9202	1.9302	1.0773
K00968	PCYT1	K00968	2.9208	2.2294	0.8008
		g_Debaryomyces.s__Debaryomyces_hansenii	2.9208	2.2294	0.8008
K13511	TAZ	K13511	2.652	2.1168	1.1073
		g_Debaryomyces.s__Debaryomyces_hansenii	2.652	2.1168	1.1073
K06123	AYR1	K06123	2.4698	2.7502	0.6747
		g_Debaryomyces.s__Debaryomyces_hansenii	2.4698	2.7502	0.6747
K18694	PGC1	K18694	2.6474	1.9588	1.1157
		g_Debaryomyces.s__Debaryomyces_hansenii	2.6474	1.9588	1.1157
K00894	ETNK, Ek	K00894	2.8526	2.2496	0.7023
		g_Debaryomyces.s__Debaryomyces_hansenii	2.8526	2.2496	0.7023
K14674	TGL4	K14674	2.9154	1.9414	0.877
		g_Debaryomyces.s__Debaryomyces_hansenii	2.9154	1.9414	0.877
K01115	PLD1_2	K01115	3.0928	1.5218	1.0213
		g_Debaryomyces.s__Debaryomyces_hansenii	3.0928	1.5218	1.0213
K22831	LOA1	K22831	3.045	1.874	0.5325
		g_Debaryomyces.s__Debaryomyces_hansenii	3.045	1.874	0.5325
K13519	LPT1, AL	K13519	2.151	2.2984	0.915
		g_Debaryomyces.s__Debaryomyces_hansenii	2.151	2.2984	0.915
K14676	NTE, NRE	K14676	2.747	1.756	0.8307
		g_Debaryomyces.s__Debaryomyces_hansenii	2.747	1.756	0.8307
K15728	LPIN	K15728	2.8006	1.6334	0.8477
		g_Debaryomyces.s__Debaryomyces_hansenii	2.8006	1.6334	0.8477
K00551	PEMT	K00551	2.7444	1.8248	0.5378
		g_Debaryomyces.s__Debaryomyces_hansenii	2.6924	1.8248	0.5378
		g_Meyerozyma.s__Meyerozyma_guilliermondii	0.052	0	0
K08744	CRLS	K08744	2.0202	1.6038	0.9912
		g_Debaryomyces.s__Debaryomyces_hansenii	2.0202	1.6038	0.9912
K00999	CDIPT	K00999	3.0666	0.9238	0.6427
		g_Debaryomyces.s__Debaryomyces_hansenii	3.0666	0.9238	0.6427
K16368	DGK1	K16368	2.2004	1.4356	0.6538
		g_Debaryomyces.s__Debaryomyces_hansenii	2.2004	1.4356	0.6538
K01094	GEP4	K01094	2.0614	1.774	0.4752
		g_Debaryomyces.s__Debaryomyces_hansenii	2.0614	1.774	0.4752
K00901	dgkA, DG	K00901	0.8528	2.321	0.2417
		g_Escherichia.s__Escherichia_coli	0.7016	1.5414	0.2417
		g_Klebsiella.s__Klebsiella_pneumoniae	0	0.7798	0
		K00901unclassified	0.1512	0	0
K01058	pIdA	K01058	0.9808	1.3938	0.0737
		g_Escherichia.s__Escherichia_coli	0.8988	0.8032	0.0737
		g_Klebsiella.s__Klebsiella_pneumoniae	0	0.5908	0
		g_Proteus.s__Proteus_mirabilis	0.082	0	0
K01521	cdh	K01521	1.3738	0.8938	0.137
		g_Escherichia.s__Escherichia_coli	1.3738	0.6776	0.137
		g_Klebsiella.s__Klebsiella_pneumoniae	0	0.2162	0
K00998	pssA	K00998	0.7186	1.2066	0
		g_Escherichia.s__Escherichia_coli	0.6696	0.5762	0
		g_Klebsiella.s__Klebsiella_pneumoniae	0	0.6016	0
		g_Proteus.s__Proteus_mirabilis	0.0492	0.0288	0
K01048	pIdB	K01048	0.8812	0.9402	0.0658

		g_Escherichia.s_Escherichia_coli	0.8812	0.8238	0.0658
		g_Proteus.s_Proteus_mirabilis	0	0.1164	0
K18697	pgpC	K18697	0.63	1.1942	0.0547
		g_Escherichia.s_Escherichia_coli	0.63	0.5262	0.0547
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.668	0
K00105	E1.1.3.21	K00105	0	0.9242	0.734
		g_Aerococcus.s_Aerococcus_viridans	0	0.667	0.4737
		g_Enterococcus.s_Enterococcus_faecalis	0	0.2572	0.0158
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0	0.036
		K00105unclassified	0	0	0.2085
K00112	glpB	K00112	0.9324	0.7926	0.024
		g_Escherichia.s_Escherichia_coli	0.9324	0.7638	0.024
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.0288	0
K01096	pgpB	K01096	0.5174	0.7154	0.0988
		g_Escherichia.s_Escherichia_coli	0.5174	0.3136	0.0988
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2888	0
		g_Proteus.s_Proteus_mirabilis	0	0.1132	0
K00113	glpC	K00113	0.7676	0.4816	0
		g_Escherichia.s_Escherichia_coli	0.7126	0.4816	0
		g_Proteus.s_Proteus_mirabilis	0.0548	0	0
K04019	eutA	K04019	0.6856	0.4276	0.0212
		g_Escherichia.s_Escherichia_coli	0.6856	0.4276	0.0212
K05939	aas	K05939	0.6284	0.4284	0.0528
		g_Escherichia.s_Escherichia_coli	0.6284	0.4284	0.0528
K06132	clsC	K06132	0.3916	0.2854	0.0232
		g_Escherichia.s_Escherichia_coli	0.3916	0.2854	0.0232
K03736	eutC	K03736	0.152	0.4524	0.0348
		g_Enterococcus.s_Enterococcus_faecalis	0	0.14	0.0348
		g_Escherichia.s_Escherichia_coli	0.152	0.1306	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1816	0
K00096	araM, egs	K00096	0	0.4934	0.1197
		g_Alistipes.s_Alistipes_shahii	0	0.4934	0.1197
K00631	plsB	K00631	0	0.2778	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2778	0
K13621	BTA1	K13621	0.014	0	0
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.014	0	0
K14188	dltC	K14188	53.031	12.745	35.809
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0	1.331	0.2828
		g_Lactobacillus.s_Lactobacillus_helveticus	0	0	0.2922
		g_Lactobacillus.s_Lactobacillus_johnsonii	37.906	3.127	24.022
		g_Lactobacillus.s_Lactobacillus_reuteri	10.207	1.0162	6.321
		g_Lactococcus.s_Lactococcus_lactis	0.4206	0.7304	0
		g_Staphylococcus.s_Staphylococcus_xylosum	1.564	2.0076	0.3328
		g_Streptococcus.s_Streptococcus_thermophilus	0.31	0.61	0.2922
		K14188unclassified	2.6238	3.923	4.2653
K01921	ddl	K01921	39.256	16.472	37.154
		g_Aerococcus.s_Aerococcus_viridans	0.0394	1.0786	0.5873
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0822	1.3244	2.2092
		g_Enterococcus.s_Enterococcus_faecalis	0	0.098	0.0865
		g_Escherichia.s_Escherichia_coli	1.451	1.3016	0.2102
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.0586	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1846	0.3526	0.063
		g_Lactobacillus.s_Lactobacillus_helveticus	0.1552	0.1766	0.1458
		g_Lactobacillus.s_Lactobacillus_johnsonii	26.745	4.9166	19.436
		g_Lactobacillus.s_Lactobacillus_reuteri	6.6286	1.3504	3.9418
		g_Lactococcus.s_Lactococcus_lactis	0.528	0.951	0.7572
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.241	0.2522	0.2887
		g_Proteus.s_Proteus_mirabilis	0	0.0312	0

map00473_		g_Staphylococcus.s_Staphylococcus_xylosus	0.9038	0.7454	0.3925
D-Alanine		g_Streptococcus.s_Streptococcus_thermophilus	0.5442	0.5436	0.5578
metabolism		K01921unclassified	1.7534	3.2918	8.4768
	K01775 alr	K01775	36.561	16.879	36.182
		g_Aerococcus.s_Aerococcus_viridans	0	1.023	0.3475
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2746	1.1114	2.0788
		g_Escherichia.s_Escherichia_coli	1.107	0.7234	0.0908
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2484	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3858	0.4652	0.2903
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0608	0.066	0.062
		g_Lactobacillus.s_Lactobacillus_johnsonii	24.35	4.5388	18.04
		g_Lactobacillus.s_Lactobacillus_reuteri	8.2018	1.7258	4.6538
		g_Lactococcus.s_Lactococcus_lactis	0.7384	0.812	0.5067
		g_Proteus.s_Proteus_mirabilis	0.0594	0.3248	0
		g_Streptococcus.s_Streptococcus_thermophilus	0.3492	1.0196	0.6135
		K01775unclassified	1.0346	4.8202	9.4978
	K03367 dltA	K03367	9.315	2.754	5.6628
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2808	0.559	0.137
		g_Lactobacillus.s_Lactobacillus_helveticus	0.2118	0.177	0.061
		g_Lactobacillus.s_Lactobacillus_reuteri	7.7388	1.189	4.7258
		g_Lactococcus.s_Lactococcus_lactis	0.6882	0.491	0.4943
		g_Staphylococcus.s_Staphylococcus_xylosus	0.3954	0.3384	0.2448
	K00824 dat	K00824	0.4312	0.2696	0.169
		g_Staphylococcus.s_Staphylococcus_xylosus	0.2304	0.2696	0.169
		K00824unclassified	0.2008	0	0
	K07024 SPP	K07024	245.55	62.987	175.18
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.1126	7.6286	8.7385
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2168	3.3532	5.1182
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1048	0.1208
		g_Escherichia.s_Escherichia_coli	2.829	1.6788	0.0868
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.42	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	1.5832	1.0712	0.4928
		g_Lactobacillus.s_Lactobacillus_helveticus	0.1976	0.288	0.0863
		g_Lactobacillus.s_Lactobacillus_johnsonii	195.95	32.011	130.43
		g_Lactobacillus.s_Lactobacillus_reuteri	27.151	3.7476	15.723
		g_Lactococcus.s_Lactococcus_lactis	5.9084	8.5188	7.325
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.7368	0.6066	0.19
		g_Proteus.s_Proteus_mirabilis	0	0.1876	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.6948	0.3742	0.3682
		K07024unclassified	3.1744	2.9976	6.4937
	K01810 GPI, pgi	K01810	63.816	54.236	86.045
		g_Alistipes.s_Alistipes_shahii	0	0.6618	0.2498
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.5468	11.099	12.073
		g_Bacteroides.s_Bacteroides_uniformis	0	5.4874	0
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0242	1.2746	1.868
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.253	2.2362	0.632
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0308	0.0222
		g_Escherichia.s_Escherichia_coli	0.7812	0.595	0.0783
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1404	0.1488	0.1422
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0796	0	0.0252
		g_Lactobacillus.s_Lactobacillus_johnsonii	21.924	3.9686	14.671
		g_Lactobacillus.s_Lactobacillus_reuteri	7.2986	0.8022	4.671
		g_Lactococcus.s_Lactococcus_lactis	0.7638	0.5616	0.8135
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1478	0.1178	0.3165
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0198	0	0
		g_Parabacteroides.s_Parabacteroides_goldsteinii	2.869	2.7772	6.0492
		g_Proteus.s_Proteus_mirabilis	0	0.0418	0
		g_Staphylococcus.s_Staphylococcus_lentus	1.001	0.2066	0.939

		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.717	0.7224	0.3798
		<i>g_Streptococcus.s_Streptococcus_thermophilus</i>	0.3926	0.2696	0.74
		K01810unclassified	16.857	23.235	42.375
K00845	glk	K00845	59.62	48.079	62.107
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	0.8894	0.8808
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.554	0.2103
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	15.202	20.472	23.535
		<i>g_Bacteroides.s_Bacteroides_uniformis</i>	0	6.519	0
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0	0.0338	0
		<i>g_Escherichia.s_Escherichia_coli</i>	0.4974	0.4102	0.0325
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.2464	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.5394	0.3014	0.1493
		<i>g_Lactobacillus.s_Lactobacillus_johnsonii</i>	29.805	6.1234	18.176
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	5.794	1.4972	3.626
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.7542	0.3936	0.9335
		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0	0	0.073
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.1962	0.4384	0.0423
		K00845unclassified	6.8318	10.201	14.448
K01835	pgm	K01835	42.661	45.206	52.53
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0.0226	1.2674	0.8535
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.5396	0.2572
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.4688	9.7104	9.8247
		<i>g_Bacteroides.s_Bacteroides_uniformis</i>	0	4.455	0
		<i>g_Bifidobacterium.s_Bifidobacterium_pseudolongum</i>	0.1722	0.0666	1.1363
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.1462	1.3018	1.773
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	5.6148	3.717	1.8298
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0.019	0	0.0168
		<i>g_Escherichia.s_Escherichia_coli</i>	0.3926	0.2796	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.4152	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.3086	0.4444	0.2442
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	7.9652	1.576	4.6575
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0356	0	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0798	0.0866	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.4054	0.072	0.1727
		K01835unclassified	21.031	21.274	31.764
K00975	glgC	K00975	42.754	37.974	57.771
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0.0676	0.6684	0.7265
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.1678	1.1488	2.2093
		<i>g_Escherichia.s_Escherichia_coli</i>	0.6796	0.4406	0.0232
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.4318	0
		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.0816	0.0298	0.1268
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	1.5684	1.3722	1.1092
		K00975unclassified	40.188	33.882	53.576
K01223	E3.2.1.86IK01223	K01223	57.945	23.996	50.551
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.093	1.2366	1.7353
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0.0226	0.3232	0.101
		<i>g_Escherichia.s_Escherichia_coli</i>	2.2252	2.1374	0.2917
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.8758	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.2138	0.1334	0.0247
		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.3086	0.2046	0.0643
		<i>g_Lactobacillus.s_Lactobacillus_johnsonii</i>	43.483	8.041	36.255
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	3.5512	4.3946	3.5988
		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0	0	0.0233
		<i>g_Leuconostoc.s_Leuconostoc_mesenteroides</i>	0	0	0.1423
		K01223unclassified	8.0472	6.649	8.3145
K00847	E2.7.1.4, sK00847	K00847	47.98	24.682	45.554
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	0.4564	1.322
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.574	0.107

		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.1248	9.8452	8.024
		g_Enterococcus.s_Enterococcus_faecalis	0.0818	0	0
		g_Escherichia.s_Escherichia_coli	0.1978	0.1086	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	1.0366	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0592	0.0924	0.0498
		g_Lactobacillus.s_Lactobacillus_johnsonii	29.705	4.6992	21.923
		g_Lactobacillus.s_Lactobacillus_reuteri	5.2674	0.81	3.5913
		g_Lactococcus.s_Lactococcus_lactis	0.6066	0.443	0.4747
		K00847unclassified	4.9366	6.6158	10.062
K01187	malZ	K01187	39.611	24.659	39.706
		g_Alistipes.s_Alistipes_finegoldii	0	0.0594	0
		g_Alistipes.s_Alistipes_shahii	0	0.7892	0.1747
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.704	9.8148	10.925
		g_Enterococcus.s_Enterococcus_faecalis	0.061	0.019	0.0182
		g_Escherichia.s_Escherichia_coli	0.3728	0.2966	0.0725
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0	0.1554	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0758	0.0832	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	24.931	3.5944	16.033
		g_Lactococcus.s_Lactococcus_lactis	0.5992	0.8882	0.4815
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0186	0	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.2818	0.2476	0.1427
		K01187unclassified	6.5674	8.7104	11.858
K02761	PTS-Cel-EK02761		55.27	15.361	29.063
		g_Enterococcus.s_Enterococcus_faecalis	0	0.4672	0.089
		g_Escherichia.s_Escherichia_coli	0.4312	0.466	0.068
		g_Klebsiella.s_Klebsiella_pneumoniae	0	1.9118	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.632	1.0996	0.202
		g_Lactobacillus.s_Lactobacillus_helveticus	0.1714	0.3296	0.0727
		g_Lactobacillus.s_Lactobacillus_johnsonii	41.495	6.212	18.649
		g_Lactobacillus.s_Lactobacillus_reuteri	9.5702	1.2558	4.867
		g_Lactococcus.s_Lactococcus_lactis	2.038	2.4566	2.2125
		g_Lactococcus.s_Lactococcus_raffinolactis	0.1026	0.2738	0.091
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0	0.029	0
		g_Streptococcus.s_Streptococcus_thermophilus	0.412	0.8596	0.4682
		K02761unclassified	0.4182	0	2.3433
K01176	AMY, am	K01176	16.123	27.119	29.746
		g_Aerococcus.s_Aerococcus_viridans	0.0246	0.87	1.5868
		g_Alistipes.s_Alistipes_finegoldii	0	0.2334	0.1102
		g_Alistipes.s_Alistipes_shahii	0	0.231	0.1225
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	13.144	22.755	25.327
		g_Escherichia.s_Escherichia_coli	1.3512	0.9794	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3982	0
		g_Lactococcus.s_Lactococcus_lactis	0.941	0.6554	1.4795
		K01176unclassified	0.6618	0.9958	1.1203
K00688	PYG, glg	K00688	21.101	22.538	25.563
		g_Aerococcus.s_Aerococcus_viridans	0	0.7646	1.3062
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4118	0
		g_Lactococcus.s_Lactococcus_raffinolactis	0.0182	0	0.0127
		K00688unclassified	21.083	21.361	24.244
K00963	UGP2, gal	K00963	19.395	18.531	25.396
		g_Aerococcus.s_Aerococcus_viridans	0	0.3502	0.5685
		g_Corynebacterium.s_Corynebacterium_glutamicum	0	1.1496	2.3145
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.214	2.1506	0.9083
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	1.226	2.3838	2.052
		g_Escherichia.s_Escherichia_coli	0.4598	0.2868	0.07
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2996	0.4516	0.1802
		g_Lactobacillus.s_Lactobacillus_helveticus	0.2954	0.3322	0
		g_Lactobacillus.s_Lactobacillus_murinus	2.9982	2.9178	0.6737

		g_Lactobacillus.s_Lactobacillus_reuteri	9.3656	0.9732	5.0935
		g_Lactococcus.s_Lactococcus_lactis	0.449	0.4236	0.3322
		K00963unclassified	1.0878	7.1124	13.204
K02759	PTS-Cel-EK02759		31.753	7.4898	23.151
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1918	0
		g_Escherichia.s_Escherichia_coli	1.1328	0.697	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	1.7028	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	29.856	3.98	20.064
		g_Lactococcus.s_Lactococcus_lactis	0.7642	0.9184	1.524
		K02759unclassified	0	0	1.5632
K00700	GBE1, glgK00700		18.415	15.723	26.791
		g_Debaryomyces.s_Debaryomyces_hansenii	3.1444	1.437	0.8888
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2646	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.016	0.0178	0
		g_Lactococcus.s_Lactococcus_lactis	0.77	0.663	0.7522
		K00700unclassified	14.485	13.341	25.15
K00703	glgA K00703		16.581	16.896	25.572
		g_Aerococcus.s_Aerococcus_viridans	0	0.5596	0.5852
		g_Alistipes.s_Alistipes_shahii	0	0.543	0.3187
		g_Blautia.s_Ruminococcus_torques	0.0202	0	0
		g_Escherichia.s_Escherichia_coli	0.956	0.9152	0.0207
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2798	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.053	0	0
		g_Lactococcus.s_Lactococcus_lactis	0.7024	0.893	0.611
		K00703unclassified	14.849	13.705	24.036
K05349	bgIX K05349		16.222	19.616	22.407
		g_Alistipes.s_Alistipes_finegoldii	0	0.209	0
		g_Alistipes.s_Alistipes_shahii	0	0.8862	0.4578
		g_Escherichia.s_Escherichia_coli	1.1766	0.1876	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2882	0
		g_Lactococcus.s_Lactococcus_lactis	0.073	0.066	0.0598
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0694	0	0
		K05349unclassified	14.903	17.98	21.889
map00500_	K01838 pgmB K01838		27.69	6.017	19.348
Starch and		g_Alistipes.s_Alistipes_shahii	0	0.216	0.3887
sucrose		g_Enterococcus.s_Enterococcus_faecalis	0.1188	0	0.053
metabolism		g_Escherichia.s_Escherichia_coli	0.8424	0.203	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0	0.0716	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	26.234	5.2132	18.27
		g_Lactococcus.s_Lactococcus_lactis	0.3806	0.1898	0.3997
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.114	0.1236	0.2375
K01208	cd, ma, np K01208		26.197	6.205	20.028
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1406	1.3686	2.0522
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0686	0.0657
		g_Lactobacillus.s_Lactobacillus_johnsonii	25.537	4.2282	17.394
		g_Lactococcus.s_Lactococcus_lactis	0.5202	0.5396	0.516
K02760	PTS-Cel-EK02760		28.363	6.943	15.96
		g_Escherichia.s_Escherichia_coli	0	0.1732	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	2.1464	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	26.52	3.4746	14.475
		g_Lactococcus.s_Lactococcus_lactis	1.6748	0.8532	0.171
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0.296	0.258
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0	0	0.194
		g_Proteus.s_Proteus_mirabilis	0.1676	0	0
		K02760unclassified	0	0	0.8618
K02810	PTS-Scr-EK02810		15.928	5.8756	26.946
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0156	0.0147
		g_Escherichia.s_Escherichia_coli	0	0.2962	0

		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.6578	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0788	0	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	13.799	2.9594	21.033
		g_Lactococcus.s_Lactococcus_lactis	0.554	0.6178	0.441
		g_Proteus.s_Proteus_mirabilis	0	0.0574	0
		g_Staphylococcus.s_Staphylococcus_xylosus	1.0178	0.6238	0.7283
		g_Streptococcus.s_Streptococcus_thermophilus	0.4776	0.4468	0.4438
		K02810unclassified	0	0.201	4.2857
K01193	INV, sacAK01193		13.745	14.588	17.423
		g_Aerococcus.s_Aerococcus_viridans	0.027	0.7196	0.7047
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.1138	8.2352	8.238
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0852	0.7514	1.868
		g_Debaryomyces.s_Debaryomyces_hansenii	0.4486	0.4294	0.1975
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1108	0.02
		g_Escherichia.s_Escherichia_coli	0.7864	0.7726	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5106	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.0502	0.0918	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0592	0.1344	0.0193
		g_Lactococcus.s_Lactococcus_lactis	0.0222	0.1512	0.1625
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1008	0.1532	0.1358
		g_Proteus.s_Proteus_mirabilis	0.0906	0.0678	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.5534	0.1698	0.2255
		K01193unclassified	5.4074	2.2892	5.8517
K00844	HK	K00844	14.981	16.244	12.087
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.6494	9.8578	9.5063
		g_Debaryomyces.s_Debaryomyces_hansenii	8.331	6.3866	2.58
K01214	ISA, treX	K01214	13.276	15.566	8.1825
		K01214unclassified	13.276	15.566	8.1825
K00690	E2.4.1.7	K00690	20.909	3.783	4.3398
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.128	0.5076	0.1153
		g_Lactobacillus.s_Lactobacillus_johnsonii	13.094	1.607	0
		g_Lactobacillus.s_Lactobacillus_reuteri	7.4422	1.1026	3.6953
		g_Lactococcus.s_Lactococcus_lactis	0	0.186	0.2158
		g_Leuconostoc.s_Leuconostoc_lactis	0.0456	0.0682	0.064
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1992	0.311	0.2495
K01210	E3.2.1.58	K01210	11.516	8.372	3.7188
		g_Debaryomyces.s_Debaryomyces_hansenii	11.516	8.372	3.7188
K01182	IMA, mall	K01182	11.901	3.1816	5.1797
		g_Debaryomyces.s_Debaryomyces_hansenii	2.4914	1.6984	0.8813
		g_Lactobacillus.s_Lactobacillus_reuteri	9.2698	1.4044	4.2787
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1402	0.0792	0.02
K21574	susB	K21574	3.815	6.7806	8.3252
		g_Alistipes.s_Alistipes_finegoldii	0	0.2926	0.0147
		K21574unclassified	3.815	6.4882	8.3105
K00697	otsA	K00697	3.7358	4.17	9.3768
		g_Debaryomyces.s_Debaryomyces_hansenii	3.271	2.2794	0.9578
		g_Escherichia.s_Escherichia_coli	0.4646	0.5378	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1884	0
		K00697unclassified	0	1.1646	8.4188
K00705	malQ	K00705	2.382	4.3486	9.8012
		g_Aerococcus.s_Aerococcus_viridans	0.025	1.0422	2.0245
		g_Alistipes.s_Alistipes_finegoldii	0	0.085	0.0488
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.147	1.4624	2.2767
		g_Escherichia.s_Escherichia_coli	0.1534	0.069	0
		g_Lactococcus.s_Lactococcus_lactis	0.5714	0.6192	0.426
		K00705unclassified	1.485	1.0708	5.0252
K00978	rfbF	K00978	2.365	3.334	9.832
		K00978unclassified	2.365	3.334	9.832

K01232	glvA	K01232	2.0286	2.7466	6.0313
		g_Aerococcus.s_Aerococcus_viridans	0	0	0.0222
		g_Escherichia.s_Escherichia_coli	0.688	0.648	0.1155
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4042	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2298	0.298	0.0673
		K01232unclassified	1.1108	1.3966	5.8265
K02819	PTS-Tre-EK02819	K02819	3.4224	3.548	2.754
		g_Escherichia.s_Escherichia_coli	0.9036	1.3136	0.0865
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3632	0
		g_Proteus.s_Proteus_mirabilis	0.0234	0.0218	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.6844	0.576	0.3537
		K02819unclassified	1.8106	1.2734	2.3137
K05343	treS	K05343	0	0.6304	7.0582
		g_Escherichia.s_Escherichia_coli	0	0.2268	0.018
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1184	0
		K05343unclassified	0	0.2856	7.0402
K16147	glgE	K16147	0.2126	1.6636	5.5505
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2126	1.4076	1.9112
		K16147unclassified	0	0.2558	3.6392
K16148	glgM	K16148	0.1934	0.9744	5.91
		K16148unclassified	0.1934	0.9744	5.91
K01179	E3.2.1.4	K01179	0.2278	6.454	0.782
		g_Alistipes.s_Alistipes_finegoldii	0	0.0876	0
		g_Alistipes.s_Alistipes_shahii	0	0.12	0
		g_Bacteroides.s_Bacteroides_uniformis	0	4.2448	0
		K01179unclassified	0.2278	2.0014	0.782
K01200	pulA	K01200	0.7958	3.2074	2.3443
		g_Aerococcus.s_Aerococcus_viridans	0	1.18	0.5962
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0198	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2942	0
		g_Lactococcus.s_Lactococcus_lactis	0.191	0.3782	0.2238
		K01200unclassified	0.6048	1.3354	1.5243
K01226	treC	K01226	1.3404	2.766	1.9843
		g_Aerococcus.s_Aerococcus_viridans	0	1.2588	1.433
		g_Enterococcus.s_Enterococcus_faecalis	0	0.023	0
		g_Escherichia.s_Escherichia_coli	1.0674	0.8	0.0775
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.0474	0	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0502	0.0632	0
		g_Lactococcus.s_Lactococcus_raffinolactis	0.0718	0.021	0.1383
		g_Streptococcus.s_Streptococcus_thermophilus	0.1034	0.6	0.3355
K00750	GYG1, G`K00750	K00750	3.1078	2.1748	0.7948
		g_Debaryomyces.s_Debaryomyces_hansenii	3.0786	2.1748	0.7948
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0292	0	0
K22337	TSL1, TP;K22337	K22337	2.625	2.2206	1.1315
		g_Debaryomyces.s_Debaryomyces_hansenii	2.625	2.2206	1.1315
		K22337	2.6618	1.5984	0.7108
		g_Debaryomyces.s_Debaryomyces_hansenii	2.6364	1.5984	0.7108
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0254	0	0
K01178	SGA1	K01178	2.5376	2.1346	0.9135
		g_Debaryomyces.s_Debaryomyces_hansenii	2.5376	2.1346	0.9135
K01087	otsB	K01087	0.4954	2.1422	2.5307
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1802	1.3776	2.4358
		g_Escherichia.s_Escherichia_coli	0.3152	0.5558	0.0948
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2086	0
K01222	E3.2.1.86;K01222	K01222	0.5118	2.964	1.1765
		g_Aerococcus.s_Aerococcus_viridans	0	0.5556	0.8328
		g_Escherichia.s_Escherichia_coli	0.5118	0.3456	0.047
		g_Klebsiella.s_Klebsiella_pneumoniae	0	1.725	0

		K01222unclassified	0	0.3376	0.2967
K01236	treZ, glgZ	K01236	0.0938	1.3026	1.9333
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0938	1.3026	1.9333
K06896	mapP	K06896	0	1.086	1.82
		g_Aerococcus.s_Aerococcus_viridans	0	0.8124	1.82
		g_Enterococcus.s_Enterococcus_faecalis	0	0.2736	0
K02777	PTS-Glc-IK	K02777	1.1544	1.135	0.7515
		g_Enterococcus.s_Enterococcus_faecalis	0	0.107	0
		g_Escherichia.s_Escherichia_coli	0	0.3902	0.1473
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1794	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3666	0.1904	0.1717
		g_Staphylococcus.s_Staphylococcus_xylosum	0.698	0.2684	0.4325
		K02777unclassified	0.0898	0	0
K01194	TREH, tre	K01194	1.5494	1.5526	0.0355
		g_Escherichia.s_Escherichia_coli	1.5494	1.0866	0.0355
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4664	0
K02750	PTS-Glv-IK	K02750	1.1638	1.4206	0.3275
		g_Enterococcus.s_Enterococcus_faecalis	0	0	0.0183
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8046	0
		g_Staphylococcus.s_Staphylococcus_xylosum	1.1638	0.616	0.3092
K05350	bgIB	K05350	0.1732	0.1468	1.4308
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.1198	0.0806	1.4308
		g_Lactococcus.s_Lactococcus_lactis	0.0534	0.066	0
K02791	PTS-MalC	K02791	0.7214	1.2302	0.0375
		g_Enterococcus.s_Enterococcus_faecalis	0.042	0.126	0.0375
		g_Escherichia.s_Escherichia_coli	0.6164	0.5428	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4972	0
		g_Proteus.s_Proteus_mirabilis	0.063	0.0642	0
K02438	glgX	K02438	0.8418	0.4108	0.0775
		g_Escherichia.s_Escherichia_coli	0.8418	0.4108	0.0775
K00702	E2.4.1.20	K00702	0	0.698	0.4837
		K00702unclassified	0	0.698	0.4837
K07405	E3.2.1.1A	K07405	0	0.518	0.3293
		g_Alistipes.s_Alistipes_shahii	0	0.518	0.212
		K07405unclassified	0	0	0.1173
K00693	GYS	K00693	0	0	0.5423
		K00693unclassified	0	0	0.5423
K00706	E2.4.1.34	K00706	0	0.1664	0.2178
		K00706unclassified	0	0.1664	0.2178
K02808	PTS-Scr-EK	K02808	0	0.302	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0	0.302	0
K00691	mapA	K00691	0.0556	0.1016	0
		g_Enterococcus.s_Enterococcus_faecalis	0.0556	0.1016	0
K16055	TPS	K16055	0.013	0	0
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.013	0	0
K01442	E3.5.1.24	K01442	92.359	32.142	73.575
		g_Alistipes.s_Alistipes_shahii	0	0.5498	0.1523
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	11.885	16.106	17.883
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0412	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0	0.335	0.1437
		g_Lactobacillus.s_Lactobacillus_helveticus	0	0.0962	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	72.553	12.908	50.213
		g_Lactobacillus.s_Lactobacillus_reuteri	6.0394	1.3452	3.697
		g_Lactococcus.s_Lactococcus_lactis	1.8818	0.7618	1.486
K01442	E3.5.1.24	K01442	92.359	32.142	73.575
		g_Alistipes.s_Alistipes_shahii	0	0.5498	0.1523
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	11.885	16.106	17.883
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0412	0

map00120
Primary bile
acid
biosynthesis

map00121_ Secondary bile acid biosynthesis	K07007	baiN	g_Lactobacillus.s_Lactobacillus_delbrueckii	0	0.335	0.1437	
			g_Lactobacillus.s_Lactobacillus_helveticus	0	0.0962	0	
			g_Lactobacillus.s_Lactobacillus_johnsonii	72.553	12.908	50.213	
			g_Lactobacillus.s_Lactobacillus_reuteri	6.0394	1.3452	3.697	
			g_Lactococcus.s_Lactococcus_lactis	1.8818	0.7618	1.486	
			K07007	1.4174	1.77	1.1667	
			g_Alistipes.s_Alistipes_shahii	0	0.3112	0.151	
			g_Enterococcus.s_Enterococcus_faecalis	0	0.0306	0.0495	
			g_Escherichia.s_Escherichia_coli	0.6864	0.519	0.1653	
			g_Lactococcus.s_Lactococcus_lactis	0.7312	0.9092	0.8008	
K00076	hdhA	K00076	1.8044	0.2756	0.0473		
		g_Escherichia.s_Escherichia_coli	0.0964	0.2756	0.0473		
		K00076unclassified	1.708	0	0		
K00016	LDH, ldh	K00016	112.93	29.277	95.643		
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.0978	0.1072	0.7808		
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1856	1.5554	2.5247		
		g_Enterococcus.s_Enterococcus_faecalis	0	0.175	0.033		
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.6078	0		
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.9606	0.9334	0.2585		
		g_Lactobacillus.s_Lactobacillus_helveticus	0.5816	0.326	0.2458		
		g_Lactobacillus.s_Lactobacillus_johnsonii	64.978	12.267	49.18		
		g_Lactobacillus.s_Lactobacillus_reuteri	40.309	7.153	24.038		
		g_Lactococcus.s_Lactococcus_lactis	3.4188	3.0038	2.2945		
		g_Staphylococcus.s_Staphylococcus_xylosus	0.3018	0.2656	0.1492		
		g_Streptococcus.s_Streptococcus_thermophilus	0.6424	0.6768	0.4148		
		K00016unclassified	1.453	2.2064	15.723		
		K01572	oadB	K01572	57.507	58.759	88.151
				g_Bacteroides.s_Bacteroides_thetaiotaomicron	12.589	14.922	20.416
				g_Bacteroides.s_Bacteroides_uniformis	0	0.4174	0
g_Klebsiella.s_Klebsiella_pneumoniae	0			0.4322	0		
g_Parabacteroides.s_Parabacteroides_goldsteinii	3.2876			2.6116	7.5237		
K01572unclassified	41.631			40.376	60.211		
K00925	72.172			45.05	72.987		
K00925	ackA	g_Aerococcus.s_Aerococcus_viridans	0	0.9598	1.3587		
		g_Alistipes.s_Alistipes_shahii	0	0.7486	0.283		
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.033	10.814	10.997		
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1072	0.821	1.947		
		g_Enterococcus.s_Enterococcus_faecalis	0.0574	0.203	0.0257		
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	2.6516	7.7116	7.2655		
		g_Escherichia.s_Escherichia_coli	0.4126	0.5178	0.0587		
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4258	0		
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2416	0.2746	0.057		
		g_Lactobacillus.s_Lactobacillus_helveticus	0.3942	0.4226	0.0547		
		g_Lactobacillus.s_Lactobacillus_johnsonii	44.822	6.6294	27.367		
		g_Lactobacillus.s_Lactobacillus_reuteri	5.7598	1.112	4.5765		
		g_Lactococcus.s_Lactococcus_lactis	1.6906	1.7906	1.335		
		g_Lactococcus.s_Lactococcus_raffinolactis	0.1098	0	0.028		
		g_Leuconostoc.s_Leuconostoc_lactis	0.0272	0	0		
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.151	0.3996	0.2243		
		g_Proteus.s_Proteus_mirabilis	0.0284	0.0878	0		
		g_Staphylococcus.s_Staphylococcus_xylosus	0.7296	0.5602	0.2367		
		g_Streptococcus.s_Streptococcus_thermophilus	0.4976	0.528	0.862		
K00925unclassified	7.4588	11.044	16.31				
K00626	E2.3.1.9, ε	K00626	71.659	38.462	61.992		
		g_Aerococcus.s_Aerococcus_viridans	0	1.5938	2.1997		
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2034	1.2244	2.2053		
		g_Debaryomyces.s_Debaryomyces_hansenii	2.8842	2.5722	1.175		
		g_Enterococcus.s_Enterococcus_faecalis	0	0.015	0		

		<i>g_Escherichia.s_Escherichia_coli</i>	0.9256	0.633	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.3738	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.2302	0.2006	0.0588
		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.0722	0.1626	0.0592
		<i>g_Lactobacillus.s_Lactobacillus_johnsonii</i>	25.602	3.3042	16.588
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	9.784	1.7638	6.3277
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	1.2286	1.3056	1.0962
		K00626unclassified	30.728	25.313	32.282
K01610	E4.1.1.49,	K01610	47.831	52.05	62.892
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	10.069	13.441	15.012
		<i>g_Bacteroides.s_Bacteroides_uniformis</i>	0	6.1084	0
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.6914	2.1228	0.85
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0	0	0.0352
		<i>g_Escherichia.s_Escherichia_coli</i>	0.6424	0.4978	0.0773
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.4936	0
		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.109	0.243	0.0352
		<i>g_Parabacteroides.s_Parabacteroides_goldsteinii</i>	5.9018	7.3852	12.762
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0406	0.0238	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.734	0.6802	0.2692
		K01610unclassified	26.643	21.054	33.851
K01006	ppdK	K01006	47.397	36.995	50.118
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0.012	0	0
		K01006unclassified	47.385	36.995	50.118
K01649	leuA, IMSK	K01649	30.5	46.937	53.246
		<i>g_Alistipes.s_Alistipes_finegoldii</i>	0	0.0764	0
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.3634	9.223	9.5927
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.1704	1.0372	2.4268
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	6.0628	4.3044	1.988
		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	4.9134	17.064	13.502
		<i>g_Escherichia.s_Escherichia_coli</i>	1.0062	0.9238	0.0217
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	1.0372	0
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.0766	0.1468	1.4947
		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0.0598	0.0938	0.1798
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0634	0.0494	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.6354	0.4582	0.4455
		<i>g_Streptococcus.s_Streptococcus_thermophilus</i>	0.4302	0.8502	0.3107
		K01649unclassified	10.718	11.672	23.283
K00625	E2.3.1.8, r	K00625	33.307	44.19	52.443
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	0.7184	1.7502
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.4412	9.7586	9.3955
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0.0358	0.0418	0.0637
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.2648	0.2	0.1705
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	8.0492	1.6578	4.2793
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.8836	1.0004	0.5597
		<i>g_Parabacteroides.s_Parabacteroides_goldsteinii</i>	3.1954	3.0042	6.3298
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.7976	0.8544	0.5297
		K00625unclassified	13.639	26.954	29.364
K03737	por, nifJ	K03737	50.752	35.958	42.417
		<i>g_Escherichia.s_Escherichia_coli</i>	0.1124	0.055	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.2408	0
		K03737unclassified	50.64	35.662	42.417
K00175	korB, oor	K00175	33.585	40.981	44.244
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	14.626	18.831	18.709
		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	0.677	1.9052	1.3792
		<i>g_Parabacteroides.s_Parabacteroides_goldsteinii</i>	3.824	3.7356	6.9213
		K00175unclassified	14.458	16.509	17.235
K03778	ldhA	K03778	60.728	14.28	39.553
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.7892	0.1942

		<i>g_Escherichia.s_Escherichia_coli</i>	0.3074	0.4334	0.0672
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.1736	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	1.222	1.8764	1.0257
		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.5058	0.0658	0.2313
		<i>g_Lactobacillus.s_Lactobacillus_johnsonii</i>	30.266	5.4094	19.918
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	27.893	5.2142	17.843
		<i>g_Leuconostoc.s_Leuconostoc_lactis</i>	0	0	0.0625
		<i>g_Leuconostoc.s_Leuconostoc_mesenteroides</i>	0.254	0.318	0.2117
		K03778unclassified	0.2782	0	0
K01961	accC	K01961	30.76	38.892	40.803
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	1.1372	0.69
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	7.45	9.3336	9.442
		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	2.4898	7.5372	5.5873
		<i>g_Escherichia.s_Escherichia_coli</i>	0.924	0.6108	0.0663
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.8394	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.3604	0.4654	0.1655
		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.0854	0.1266	0.0712
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	5.7874	0.798	3.5358
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.7044	1.0254	0.4613
		<i>g_Leuconostoc.s_Leuconostoc_lactis</i>	0	0	0.0433
		<i>g_Leuconostoc.s_Leuconostoc_mesenteroides</i>	0.025	0	0.0298
		<i>g_Proteus.s_Proteus_mirabilis</i>	0	0.0744	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosum</i>	0.7374	0.5824	0.2248
		<i>g_Streptococcus.s_Streptococcus_thermophilus</i>	0.4502	0.4794	0.5307
		K01961unclassified	11.745	15.882	19.955
K01571	oadA	K01571	28.132	33.076	31.046
		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	3.0136	9.5106	7.532
		<i>g_Eubacterium.s_Eubacterium_plexicaudatum</i>	0.028	0.0242	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.5656	0
		K01571unclassified	25.09	22.976	23.514
K00873	PK, pyk	K00873	27.381	29.173	34.432
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0.0504	1.5808	2.5435
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.3264	0.264
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	8.0242	10.642	10.76
		<i>g_Bifidobacterium.s_Bifidobacterium_pseudolongum</i>	0.1276	0.1358	0.6548
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.1882	2.5728	4.0065
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.9572	2.1684	1.0065
		<i>g_Escherichia.s_Escherichia_coli</i>	1.027	1.2106	0.0657
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.2628	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.1984	0.2148	0.0698
		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.196	0.1222	0.0368
		<i>g_Lactobacillus.s_Lactobacillus_murinus</i>	2.0392	2.0868	0.4272
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	6.1448	1.2	3.222
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.854	0.8276	0.3952
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0436	0	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.108	0.0636	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosum</i>	0.7648	0.6506	0.392
		K00873unclassified	3.6574	5.1072	10.588
K00027	ME2, sfcAK	K00027	27.924	22.54	37.752
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.0468	3.0122	0.841
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0.0292	0.0616	0.0513
		<i>g_Escherichia.s_Escherichia_coli</i>	0.4324	1.0612	0.1395
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.1854	0
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	4.9204	1.0866	2.9497
		<i>g_Proteus.s_Proteus_mirabilis</i>	0	0.0192	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosum</i>	0.6254	0.413	0.1017
		K00027unclassified	18.87	16.701	33.669
K00024	mdh	K00024	18.022	26.657	38.973

	g_Alistipes.s_Alistipes_shahii	0	1.22	0.5095
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	12.719	12.416	17.867
	g_Bacteroides.s_Bacteroides_uniformis	0	5.8926	0
	g_Corynebacterium.s_Corynebacterium_glutamicum	0	1.064	1.7278
	g_Escherichia.s_Escherichia_coli	1.057	0.4512	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8196	0
	g_Parabacteroides.s_Parabacteroides_goldsteinii	2.378	2.295	6.7952
	g_Staphylococcus.s_Staphylococcus_lentus	0.7094	0	1.1085
	K00024unclassified	1.1586	2.4986	10.965
K00382	DLD, lpd, K00382	20.384	22.183	35.255
	g_Aerococcus.s_Aerococcus_viridans	0.0282	1.1376	1.1237
	g_Alistipes.s_Alistipes_shahii	0	0.4702	0.1685
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.1822	7.1946	8.3845
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1736	1.419	2.1947
	g_Debaryomyces.s_Debaryomyces_hansenii	3.4276	2.2896	1.013
	g_Enterococcus.s_Enterococcus_faecalis	0	2.3126	0.0483
	g_Escherichia.s_Escherichia_coli	0.9426	0.9026	0.0855
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2652	0
	g_Lactobacillus.s_Lactobacillus_reuteri	6.6142	1.0754	3.6773
	g_Lactococcus.s_Lactococcus_lactis	1.1106	0.8538	0.6305
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1454	0.1552	0.1507
	g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0224	0	0
	g_Proteus.s_Proteus_mirabilis	0	0.0206	0
	g_Staphylococcus.s_Staphylococcus_xylosus	0.8618	0.5668	0.623
	g_Streptococcus.s_Streptococcus_thermophilus	0.5502	0.3934	0.3417
	K00382unclassified	1.3252	3.126	16.813
K01679	E4.2.1.2B, K01679	33.325	11.528	28.487
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.0958	1.3188	2.2597
	g_Debaryomyces.s_Debaryomyces_hansenii	3.5058	2.0074	1.1263
	g_Escherichia.s_Escherichia_coli	0.443	0.2964	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3838	0.609	0.0697
	g_Lactobacillus.s_Lactobacillus_helveticus	0.0462	0.1866	0.0717
	g_Lactobacillus.s_Lactobacillus_johnsonii	17.71	3.4362	13.447
	g_Lactobacillus.s_Lactobacillus_reuteri	7.8402	1.169	4.6663
	g_Proteus.s_Proteus_mirabilis	0.0238	0.028	0
	K01679unclassified	3.2772	2.4768	6.8458
K01512	acyP, K01512	37.121	10.135	23.003
	g_Corynebacterium.s_Corynebacterium_glutamicum	0	0.7326	1.4322
	g_Escherichia.s_Escherichia_coli	0.9246	0.5946	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2626	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	1.0014	0	0
	g_Lactobacillus.s_Lactobacillus_johnsonii	24.204	6.2818	15.637
	g_Lactobacillus.s_Lactobacillus_reuteri	7.7238	1.311	1.8035
	g_Lactococcus.s_Lactococcus_lactis	0.6568	0.4606	0.202
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.4812	0	0.4288
	g_Streptococcus.s_Streptococcus_thermophilus	0.459	0.4494	0.4647
	K01512unclassified	1.6702	0.0428	3.0352
K00244	frdA, K00244	28.686	11.35	23.372
	g_Enterorhabdus.s_Enterorhabdus_caecimuris	0.0288	0	0
	g_Escherichia.s_Escherichia_coli	0.569	0.6034	0.0718
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3346	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.7546	0.7106	0.0718
	g_Lactobacillus.s_Lactobacillus_helveticus	0.041	0.226	0.0488
	g_Lactobacillus.s_Lactobacillus_johnsonii	17.859	3.7252	12.137
	g_Lactobacillus.s_Lactobacillus_reuteri	5.6926	1.197	3.7872
	g_Lactococcus.s_Lactococcus_lactis	0.6842	0.4684	0.4605
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0794	0.1248	0.3245
	g_Proteus.s_Proteus_mirabilis	0	0.038	0

		K00244unclassified	2.9772	3.9218	6.4703
K00156	poxB	K00156	10.982	18.673	27.716
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	9.945	16.695	17.628
		g_Escherichia.s_Escherichia_coli	0.5634	0.5936	0.0528
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2722	0
		g_Proteus.s_Proteus_mirabilis	0.0758	0.0782	0
		K00156unclassified	0.3974	1.0332	10.035
K01759	GLO1, glc	K01759	11.325	17.715	24.633
		g_Aerococcus.s_Aerococcus_viridans	0	2.2608	1.9843
		g_Alistipes.s_Alistipes_shahii	0	0.4872	0.3873
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	4.0842	4.3482	5.447
		g_Debaryomyces.s_Debaryomyces_hansenii	2.8768	2.2754	0.624
		g_Escherichia.s_Escherichia_coli	0	0.5634	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1486	0
		g_Lactococcus.s_Lactococcus_lactis	0.5952	0	0.5873
		g_Streptococcus.s_Streptococcus_thermophilus	0.8374	0.886	0.7652
		K01759unclassified	2.9316	6.7454	14.838
K00158	E1.2.3.3, r	K00158	22.902	7.9566	20.81
map00620_		g_Aerococcus.s_Aerococcus_viridans	0	0.9874	1.1643
Pyruvate		g_Enterococcus.s_Enterococcus_faecalis	0	0.022	0
metabolism		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.767	1.304	0.254
		g_Lactobacillus.s_Lactobacillus_johnsonii	20.052	4.0294	17.608
		g_Lactococcus.s_Lactococcus_lactis	1.1656	0.9688	1.087
		g_Lactococcus.s_Lactococcus_raffinolactis	0.0234	0	0.0185
		g_Staphylococcus.s_Staphylococcus_xylosus	0.8932	0.6452	0.678
K01573	oadG	K01573	13.692	12.136	21.995
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.7562	6.5928	13.381
		K01573unclassified	6.9356	5.543	8.614
K00174	korA, oor	K00174	10.876	14.79	19.439
		g_Alistipes.s_Alistipes_shahii	0	0.4878	0.239
		g_Bacteroides.s_Bacteroides_uniformis	0	0.4094	0
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	1.0782	3.0664	2.6482
		g_Parabacteroides.s_Parabacteroides_goldsteinii	2.827	2.3198	5.6347
		K00174unclassified	6.971	8.5066	10.917
K01963	accD	K01963	18.376	14.13	11.767
		g_Aerococcus.s_Aerococcus_viridans	0	0.856	0.5132
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0544	1.4522	2.1853
		g_Enterococcus.s_Enterococcus_faecalis	0.0832	0.0486	0.1112
		g_Escherichia.s_Escherichia_coli	0.6276	0.7632	0.0347
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1344	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2654	0.3056	0.038
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0512	0.5064	0.0438
		g_Lactobacillus.s_Lactobacillus_reuteri	4.0608	1.0862	3.0622
		g_Lactococcus.s_Lactococcus_lactis	0.6636	0.5402	0.8495
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0.043	0
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0412	0.1848	0.204
		g_Staphylococcus.s_Staphylococcus_xylosus	0.956	0.2976	0.3282
		g_Streptococcus.s_Streptococcus_thermophilus	0.5716	0.389	0.4928
		K01963unclassified	11.001	7.5222	3.9045
K23257	yvgN	K23257	20.561	6.2842	14.394
		g_Aerococcus.s_Aerococcus_viridans	0.0536	0.5638	1.8145
		g_Lactobacillus.s_Lactobacillus_reuteri	20.271	4.7222	12.045
		g_Lactococcus.s_Lactococcus_lactis	0.2374	0.9982	0.5337
K00656	E2.3.1.54,	K00656	13.29	14.204	13.106
		g_Escherichia.s_Escherichia_coli	1.9594	1.3866	0.0265
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4656	0
		g_Lactococcus.s_Lactococcus_lactis	0.6034	0.8386	0.6592
		K00656unclassified	10.727	11.514	12.42

K00128	ALDH	K00128	12.097	10.635	16.006
		g_Aerococcus.s_Aerococcus_viridans	0.028	0.5772	1.2963
		g_Alistipes.s_Alistipes_shahii	0	0.5984	0.0972
		g_Debaryomyces.s_Debaryomyces_hansenii	10.967	8.1784	3.5058
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0394	0	0
		K00128unclassified	1.0616	1.2814	11.107
K22211	GLX3, HSK22211		19.31	14.72	5.5475
		g_Debaryomyces.s_Debaryomyces_hansenii	19.31	14.72	5.5475
K01960	pycB	K01960	8.4934	14.117	13.43
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.2834	7.4298	9.1633
		g_Bacteroides.s_Bacteroides_uniformis	0	3.6428	0
		K01960unclassified	3.21	3.044	4.2663
K01895	ACSS, acsK01895		5.473	14.73	15.043
		g_Alistipes.s_Alistipes_shahii	0	0.4782	0.2313
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	2.8864	9.2162	7.1207
		g_Escherichia.s_Escherichia_coli	0	0.033	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3264	0
		g_Staphylococcus.s_Staphylococcus_xylosum	0.8274	0.3712	0.4298
		K01895unclassified	1.7588	4.3048	7.261
K01677	E4.2.1.2A	K01677	11.935	11.915	10.218
		K01677unclassified	11.935	11.915	10.218
K01678	E4.2.1.2A	K01678	12.219	9.0446	12.176
		K01678unclassified	12.219	9.0446	12.176
K01595	ppc	K01595	13.179	2.2488	14.862
		g_Lactobacillus.s_Lactobacillus_johnsonii	12.966	2.0688	11.397
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.2124	0.1802	0.2887
		K01595unclassified	0	0	3.1763
K00627	DLAT, acK00627		11.558	7.6654	7.9968
		g_Aerococcus.s_Aerococcus_viridans	0.0236	1.24	1.0133
		g_Debaryomyces.s_Debaryomyces_hansenii	2.9364	2.8058	1.2058
		g_Escherichia.s_Escherichia_coli	0.2836	0.1904	0.0152
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2664	0
		g_Lactobacillus.s_Lactobacillus_reuteri	5.876	1.5222	3.6615
		g_Lactococcus.s_Lactococcus_lactis	0.8062	0.6622	0.5928
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1508	0.058	0.244
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0234	0	0
		g_Staphylococcus.s_Staphylococcus_xylosum	1.4576	0.9206	1.068
		K00627unclassified	0	0	0.196
K00170	porB	K00170	9.322	7.7956	8.5498
		K00170unclassified	9.322	7.7956	8.5498
K00162	PDHB, pdK00162		10.545	6.0772	6.5642
		g_Aerococcus.s_Aerococcus_viridans	0	1.5022	1.1098
		g_Debaryomyces.s_Debaryomyces_hansenii	3.1704	2.3084	1.2042
		g_Lactobacillus.s_Lactobacillus_reuteri	6.4646	1.1136	3.1885
		g_Lactococcus.s_Lactococcus_lactis	0.664	0.8478	0.833
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0956	0.305	0.2283
		K00162unclassified	0.1506	0	0
K01069	gloB, gloCK01069		4.7976	6.9878	10.131
		g_Aerococcus.s_Aerococcus_viridans	0	1.7908	2.2963
		g_Alistipes.s_Alistipes_shahii	0	0.427	0.1663
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.3078	2.2012	6.1145
		g_Debaryomyces.s_Debaryomyces_hansenii	3.0964	1.504	0.954
		g_Escherichia.s_Escherichia_coli	1.0194	0.3342	0.1895
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2204	0
		g_Lactococcus.s_Lactococcus_lactis	0.1198	0.3902	0.2712
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0418	0	0
		g_Staphylococcus.s_Staphylococcus_xylosum	0.2126	0.1194	0.139
K00161	PDHA, pdK00161		10.77	4.42	5.9217

		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.5882	1.7386	1.1207
		g_Lactobacillus.s_Lactobacillus_reuteri	6.3764	1.3214	3.7093
		g_Lactococcus.s_Lactococcus_lactis	0.6122	0.926	0.8008
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1928	0.434	0.1817
		K00161unclassified	0	0	0.1092
K00116	mgo	K00116	3.2716	4.1998	12.078
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2796	1.445	2.1508
		g_Escherichia.s_Escherichia_coli	0.531	0.4746	0.0532
		g_Proteus.s_Proteus_mirabilis	0.0664	0.0662	0
		g_Staphylococcus.s_Staphylococcus_xylosum	1.8702	1.4422	0.7372
		K00116unclassified	0.5242	0.7716	9.1363
K00026	MDH2	K00026	9.3308	7.1556	3.4865
		g_Deбaryomyces.s_Deбaryomyces_hansenii	9.2962	6.8238	3.234
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0346	0	0
		K00026unclassified	0	0.3318	0.2525
K01596	E4.1.1.32, K01596		0.5712	2.2956	12.637
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.19	1.2624	2.4665
		K01596unclassified	0.3812	1.0332	10.17
K11263	bccA, pcc.K11263		0	1.6778	12.671
		K11263unclassified	0	1.6778	12.671
K22212	mleA, mleK22212		6.8572	2.1456	4.811
		g_Lactobacillus.s_Lactobacillus_reuteri	6.2882	1.4606	3.8043
		g_Lactococcus.s_Lactococcus_lactis	0.569	0.685	0.9887
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0	0	0.018
K02160	accB, bccIK02160		7.0372	1.871	4.847
		g_Escherichia.s_Escherichia_coli	0.7362	0.4022	0.0825
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3104	0	0
		g_Lactobacillus.s_Lactobacillus_reuteri	4.3404	0.4174	3.1802
		g_Lactococcus.s_Lactococcus_lactis	0.7604	0.7734	0.8972
		g_Proteus.s_Proteus_mirabilis	0.1852	0	0
		g_Streptococcus.s_Streptococcus_thermophilus	0.7046	0.278	0.687
K01655	LYS21, L'K01655		6.0732	4.552	3.3823
		g_Deбaryomyces.s_Deбaryomyces_hansenii	5.639	3.2392	1.837
		K01655unclassified	0.4342	1.3128	1.5453
K00138	aldB	K00138	0.9774	1.7876	9.8015
		g_Escherichia.s_Escherichia_coli	0.566	0.7036	0.0383
		K00138unclassified	0.4114	1.084	9.7633
K00163	aceE	K00163	0.1566	2.3746	9.8505
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1566	1.1216	2.1127
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2932	0
		K00163unclassified	0	0.9594	7.7377
K00101	lldD	K00101	6.0482	5.8926	1.7568
		g_Deбaryomyces.s_Deбaryomyces_hansenii	5.3274	3.9024	1.6382
		g_Escherichia.s_Escherichia_coli	0.7208	1.1814	0.1187
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8088	0
K18118	aarC, cat1 K18118		0.1046	1.864	9.927
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1046	0.9124	1.9715
		K18118unclassified	0	0.9518	7.9553
K00102	LDHD, dlK00102		6.311	4.5478	2.087
		g_Deбaryomyces.s_Deбaryomyces_hansenii	6.2484	4.5478	2.087
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0624	0	0
K00172	porG	K00172	5.0798	1.4052	4.376
		K00172unclassified	5.0798	1.4052	4.376
K01962	accA	K01962	4.0258	4.6616	2.4557
		g_Aerococcus.s_Aerococcus_viridans	0	0.971	0.5823
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1524	0.0415
		g_Escherichia.s_Escherichia_coli	0.6068	0.6828	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5892	0

		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.107	0.206	0
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.4616	1.0996	0.3595
		<i>g_Leuconostoc.s_Leuconostoc_lactis</i>	0	0.062	0.2335
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.1076	0.0862	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.839	0.2724	0.4453
		<i>g_Streptococcus.s_Streptococcus_thermophilus</i>	0.5074	0.5402	0.5253
		K01962unclassified	1.3968	0	0.2682
K01958	PC, pyc	K01958	0.5212	0.8734	8.1855
		K01958unclassified	0.5212	0.8734	8.1855
K04072	adhE	K04072	2.8668	2.2428	4.4042
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.3986	0
		K04072unclassified	2.8668	1.8442	4.4042
K01638	aceB, glcE	K01638	4.8416	2.9046	1.4615
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.9632	2.0312	1.2013
		<i>g_Escherichia.s_Escherichia_coli</i>	1.8378	0.8736	0.2603
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0198	0	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0206	0	0
K01007	pps, ppsA	K01007	3.4482	1.7026	1.0538
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.2156	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.3192	1.133	0.3047
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	1.5766	0.257	0.6752
		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0	0.0968	0.0737
		K01007unclassified	1.5522	0	0
K21618	DLD3	K21618	3.1934	2.1958	0.8328
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.1934	2.1958	0.8328
K01067	E3.1.2.1, /	K01067	2.9306	1.8598	1.147
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.9306	1.8598	1.147
K00245	frdB	K00245	4.704	1.2588	0.0453
		<i>g_Escherichia.s_Escherichia_coli</i>	0.9732	0.7312	0.0453
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.5278	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.1014	0	0
		K00245unclassified	3.6296	0	0
K04073	mhpF	K04073	0.7344	0.7726	3.7167
		<i>g_Escherichia.s_Escherichia_coli</i>	0.7344	0.6024	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.1704	0
		K04073unclassified	0	0	3.7167
K13788	pta	K13788	0	0.6208	4.1293
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.252	0
		K13788unclassified	0	0.369	4.1293
K01676	E4.2.1.2A	K01676	1.4096	2.3168	1.3107
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.4406	0.2952
		<i>g_Escherichia.s_Escherichia_coli</i>	1.2664	1.2274	0.1185
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.4644	0
		K01676unclassified	0.1432	0.1844	0.8968
K17741	GRE2	K17741	2.611	1.6146	0.7183
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.611	1.6146	0.7183
K00246	frdC	K00246	1.2454	1.6354	0
		<i>g_Escherichia.s_Escherichia_coli</i>	0.3492	1.4942	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.1414	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.1208	0	0
		K00246unclassified	0.7754	0	0
K00247	frdD	K00247	0.7162	1.378	0.142
		<i>g_Escherichia.s_Escherichia_coli</i>	0.7162	1.378	0.142
K12972	ghrA	K12972	0.9546	1.233	0.0337
		<i>g_Escherichia.s_Escherichia_coli</i>	0.9546	0.4228	0.0337
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.8102	0
K00169	porA	K00169	1.3208	0.6024	0
		K00169unclassified	1.3208	0.6024	0

K00090	ghrB	K00090	0.689	0.8118	0
		g_Escherichia.s_Escherichia_coli	0.542	0.5666	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2022	0
		g_Proteus.s_Proteus_mirabilis	0.1472	0.043	0
K04020	eutD	K04020	0.8328	0.6658	0
		g_Escherichia.s_Escherichia_coli	0.8328	0.3742	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2918	0
K00171	porD	K00171	0.5288	0.1202	0.4772
		K00171unclassified	0.5288	0.1202	0.4772
K04021	eutE	K04021	0.5902	0.4782	0.0238
		g_Escherichia.s_Escherichia_coli	0.5902	0.4782	0.0238
K00029	E1.1.1.40,	K00029	0	0.7674	0.0533
		g_Alistipes.s_Alistipes_shahii	0	0.5512	0.0533
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2162	0
K03777	dld	K03777	0.467	0.2752	0.034
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0226	0	0
		g_Escherichia.s_Escherichia_coli	0.4444	0.2568	0.034
		g_Proteus.s_Proteus_mirabilis	0	0.0184	0
K07248	aldA	K07248	0.2828	0.204	0
		g_Escherichia.s_Escherichia_coli	0.2828	0.204	0
K01026	pct	K01026	0	0.387	0
		K01026unclassified	0	0.387	0
K05523	hchA	K05523	0.165	0.19	0
		g_Escherichia.s_Escherichia_coli	0.165	0.19	0
K15024	K15024	K15024	0	0.132	0
		K15024unclassified	0	0.132	0
K01624	FBA, fba ^A	K01624	71.355	64.611	99.908
		g_Alistipes.s_Alistipes_finegoldii	0	0.1316	0.0323
		g_Alistipes.s_Alistipes_shahii	0	0.5048	0.1717
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	9.9202	13.743	19.302
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0402	1.5246	2.332
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.6544	2.1936	0.8755
		g_Escherichia.s_Escherichia_coli	0.3402	0.2892	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5458	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2224	0.1144	0.1045
		g_Lactobacillus.s_Lactobacillus_helveticus	0.039	0.0458	0
		g_Lactobacillus.s_Lactobacillus_reuteri	8.1238	1.2318	5.6717
		g_Lactococcus.s_Lactococcus_lactis	0.7324	0.8178	0.8542
		g_Lactococcus.s_Lactococcus_raffinolactis	0.0522	0.186	0.0363
		g_Staphylococcus.s_Staphylococcus_xylosus	0.931	0.5946	0.4825
		g_Streptococcus.s_Streptococcus_thermophilus	0.6196	0.995	0.7852
		K01624unclassified	46.68	41.694	69.26
K00850	pfkA, PFK	K00850	76.384	65.33	86.752
		g_Alistipes.s_Alistipes_shahii	0	0.5754	0.511
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	12.67	17.96	23.189
		g_Bacteroides.s_Bacteroides_uniformis	0	8.2692	0
		g_Deбaryomyces.s_Deбaryomyces_hansenii	2.5158	2.2884	0.9085
		g_Enterococcus.s_Enterococcus_faecalis	0	0	0.098
		g_Escherichia.s_Escherichia_coli	0.7396	0.6218	0.0327
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2906	0.2456	0.0807
		g_Lactobacillus.s_Lactobacillus_helveticus	0.106	0.0794	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	22.636	3.8092	13.481
		g_Lactobacillus.s_Lactobacillus_murinus	1.9494	2.0608	0.7917
		g_Lactococcus.s_Lactococcus_lactis	0.4936	0.5864	0.6487
		g_Proteus.s_Proteus_mirabilis	0.072	0.1116	0
		g_Staphylococcus.s_Staphylococcus_xylosus	1.002	0.5224	0.5522
		g_Streptococcus.s_Streptococcus_thermophilus	0.3052	0.5484	0.3445
		K00850unclassified	33.604	27.651	46.114

K01810	GPI, pgi	K01810	63.816	54.236	86.045
		g_Alistipes.s_Alistipes_shahii	0	0.6618	0.2498
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.5468	11.099	12.073
		g_Bacteroides.s_Bacteroides_uniformis	0	5.4874	0
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0242	1.2746	1.868
		g_Debaryomyces.s_Debaryomyces_hansenii	3.253	2.2362	0.632
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0308	0.0222
		g_Escherichia.s_Escherichia_coli	0.7812	0.595	0.0783
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1404	0.1488	0.1422
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0796	0	0.0252
		g_Lactobacillus.s_Lactobacillus_johnsonii	21.924	3.9686	14.671
		g_Lactobacillus.s_Lactobacillus_reuteri	7.2986	0.8022	4.671
		g_Lactococcus.s_Lactococcus_lactis	0.7638	0.5616	0.8135
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1478	0.1178	0.3165
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0198	0	0
		g_Parabacteroides.s_Parabacteroides_goldsteinii	2.869	2.7772	6.0492
		g_Proteus.s_Proteus_mirabilis	0	0.0418	0
		g_Staphylococcus.s_Staphylococcus_lentus	1.001	0.2066	0.939
		g_Staphylococcus.s_Staphylococcus_xylosus	0.717	0.7224	0.3798
		g_Streptococcus.s_Streptococcus_thermophilus	0.3926	0.2696	0.74
		K01810unclassified	16.857	23.235	42.375
K00948	PRPS, prs	K00948	59.812	48.361	68.815
		g_Alistipes.s_Alistipes_shahii	0	0.3406	0.1468
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.2116	0.1836	1.8042
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1288	1.3056	1.8942
		g_Debaryomyces.s_Debaryomyces_hansenii	11.885	8.8564	3.4377
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1292	0.0635
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	1.1066	2.5362	3.1507
		g_Escherichia.s_Escherichia_coli	0.369	0.3148	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.315	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.7484	1.088	0.3495
		g_Lactobacillus.s_Lactobacillus_helveticus	0.1256	0.4504	0.0317
		g_Lactobacillus.s_Lactobacillus_reuteri	16.221	2.6754	9.481
		g_Lactococcus.s_Lactococcus_lactis	1.3166	1.6254	1.173
		g_Leuconostoc.s_Leuconostoc_lactis	0	0	0.251
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.034	0.5618	0.2205
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0234	0	0
		g_Proteus.s_Proteus_mirabilis	0.0374	0	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.8498	1.2142	0.3612
		K00948unclassified	26.754	26.765	46.45
K00615	E2.2.1.1, t	K00615	53.803	46.726	70.515
		g_Aerococcus.s_Aerococcus_viridans	0.0384	0.995	1.3562
		g_Alistipes.s_Alistipes_shahii	0	0.5298	0.2545
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.6594	10.441	10.115
		g_Blautia.s_Ruminococcus_torques	0	0	0.0752
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0858	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	1.1932	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	17.008	3.4566	24.271
		g_Lactococcus.s_Lactococcus_lactis	0.4252	0.7948	0.6787
		g_Lactococcus.s_Lactococcus_raffinolactis	0.02	0	0.0605
		g_Staphylococcus.s_Staphylococcus_xylosus	0.9158	0.5726	0.5813
		K00615unclassified	27.736	28.658	33.124
K00852	rbsK, RBf	K00852	60.918	35.134	60.395
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	15.167	18.685	22.23
		g_Debaryomyces.s_Debaryomyces_hansenii	2.934	1.8148	1.077
		g_Escherichia.s_Escherichia_coli	0.9068	0.7814	0.034
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.7386	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.401	0.5512	0.1493

		g_Lactobacillus.s_Lactobacillus_johnsonii	20.562	3.4382	14.065
		g_Lactobacillus.s_Lactobacillus_reuteri	16.278	2.3256	7.659
		g_Lactococcus.s_Lactococcus_lactis	0.6094	0.5216	1.0727
		g_Proteus.s_Proteus_mirabilis	0.116	0.3434	0
		K00852unclassified	3.9432	5.9334	14.108
K00616	E2.2.1.2, t	K00616	39.163	44.312	58.932
		g_Alistipes.s_Alistipes_finegoldii	0	0.7384	0.2223
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.3892	7.0448	10.433
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.1486	0.1932	0.6875
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0762	1.1666	2.3693
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.491	2.1564	0.662
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	3.1086	8.9542	7.4335
		g_Escherichia.s_Escherichia_coli	1.5698	1.0274	0.1428
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8928	0
		g_Parabacteroides.s_Parabacteroides_goldsteinii	2.7488	3.2014	6.9867
		K00616unclassified	20.63	18.937	29.994
K00874	kdgK	K00874	41.261	34.796	64.464
		g_Alistipes.s_Alistipes_shahii	0	0.6398	0.0667
		g_Escherichia.s_Escherichia_coli	0.8868	0.584	0.068
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.355	0
		g_Lactococcus.s_Lactococcus_lactis	0.843	0.4494	0.8565
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0874	0.2022	0.1013
		g_Proteus.s_Proteus_mirabilis	0.034	0	0
		K00874unclassified	39.41	32.565	63.372
K01835	pgm	K01835	42.661	45.206	52.53
		g_Aerococcus.s_Aerococcus_viridans	0.0226	1.2674	0.8535
		g_Alistipes.s_Alistipes_shahii	0	0.5396	0.2572
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.4688	9.7104	9.8247
		g_Bacteroides.s_Bacteroides_uniformis	0	4.455	0
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.1722	0.0666	1.1363
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1462	1.3018	1.773
		g_Deбaryomyces.s_Deбaryomyces_hansenii	5.6148	3.717	1.8298
		g_Enterococcus.s_Enterococcus_faecalis	0.019	0	0.0168
		g_Escherichia.s_Escherichia_coli	0.3926	0.2796	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4152	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3086	0.4444	0.2442
		g_Lactobacillus.s_Lactobacillus_reuteri	7.9652	1.576	4.6575
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0356	0	0
		g_Proteus.s_Proteus_mirabilis	0.0798	0.0866	0
		g_Staphylococcus.s_Staphylococcus_xylosum	0.4054	0.072	0.1727
		K01835unclassified	21.031	21.274	31.764
K01619	deoC, DEIK	K01619	49.041	37.906	45.946
		g_Alistipes.s_Alistipes_shahii	0	0.572	0.1595
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	14.516	21.652	18.493
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2154	1.543	2.5635
		g_Enterococcus.s_Enterococcus_faecalis	0	0.144	0
		g_Escherichia.s_Escherichia_coli	1.0094	0.5062	0.098
		g_Klebsiella.s_Klebsiella_pneumoniae	0	1.1572	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0634	0	0.0542
		g_Lactobacillus.s_Lactobacillus_johnsonii	18.166	3.1112	9.3235
		g_Lactobacillus.s_Lactobacillus_reuteri	8.9976	1.2088	4.842
		g_Lactococcus.s_Lactococcus_lactis	0.5434	0.6924	0.5155
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0	0.0588
		K01619unclassified	5.5296	7.3194	9.8383
K00036	G6PD, zw	K00036	42.137	23.21	43.828
		g_Aerococcus.s_Aerococcus_viridans	0	0.9268	0.8667
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	4.664	7.0032	7.0918
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.0816	0.0606	0.569

		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.1612	1.4986	1.8255
		K21071unclassified	13.952	14.09	27.901
K01808	rpiB	K01808	23.345	25.675	37.867
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.3902	0.1015
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	9.2556	12.057	12.81
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.1094	1.6112	2.9448
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.0362	1.8414	0.3422
		<i>g_Escherichia.s_Escherichia_coli</i>	0.9866	0.614	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.5598	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.3106	0.448	0
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0	0.1844	0
		K01808unclassified	9.6468	7.9702	21.669
K01807	rpiA	K01807	38.423	10.418	26.217
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	0.764	2.3257
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.4732	1.602	1.2947
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0	0.1914	0.05
		<i>g_Escherichia.s_Escherichia_coli</i>	0.4768	0.4624	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.4846	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.0548	0.4522	0.0488
		<i>g_Lactobacillus.s_Lactobacillus_helveticus</i>	0.0704	0	0
		<i>g_Lactobacillus.s_Lactobacillus_johnsonii</i>	22.674	2.8656	16.038
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	9.4002	1.5512	2.7868
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.667	0.9534	0.3318
		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0.1258	0.1256	0
		<i>g_Leuconostoc.s_Leuconostoc_mesenteroides</i>	0.5572	0.5408	0.8158
		<i>g_Streptococcus.s_Streptococcus_thermophilus</i>	0.6874	0.4244	0.7493
		K01807unclassified	0.2368	0	1.7755
K11645	fbA	K11645	12.401	29.494	27.211
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.3114	0.1618
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	5.6224	7.5208	9.1868
		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	3.6964	13.415	10.305
		<i>g_Escherichia.s_Escherichia_coli</i>	0.7352	0.5274	0.0588
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.7008	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0	0.0946	0
		K11645unclassified	2.3462	6.9238	7.4983
K01839	deoB	K01839	17.411	7.621	12.985
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0	0.0636	0
		<i>g_Escherichia.s_Escherichia_coli</i>	0.651	0.517	0.0767
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.4004	0
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	10.204	1.0584	4.7988
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.5892	0.7638	0.6857
		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0	0.0326	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0	0.0276	0
		<i>g_Staphylococcus.s_Staphylococcus_lentus</i>	0.7226	0.129	1.3293
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.279	0.2314	0.1133
		<i>g_Streptococcus.s_Streptococcus_thermophilus</i>	0.4294	0.3672	0.2563
		K01839unclassified	4.5364	4.0298	5.725
K04041	fbp3	K04041	8.6184	10.539	17.74
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0.0518	0.1834	0
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.7366	0.713	0.6677
		<i>g_Staphylococcus.s_Staphylococcus_lentus</i>	0.603	0.419	1.1113
		K04041unclassified	7.2272	9.2236	15.96
K01625	eda	K01625	4.497	2.3494	12.059
		<i>g_Escherichia.s_Escherichia_coli</i>	0.0572	0.2106	0.054
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.3522	0
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.0606	0.2098	0.1158
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.121	0	0
		K01625unclassified	4.2584	1.577	11.889

K01057	PGLS, pgl	K01057	5.7072	3.8206	5.7947
		g_Debaryomyces.s_Debaryomyces_hansenii	5.7072	3.382	1.888
		K01057unclassified	0	0.4386	3.9067
K07404	pgl	K07404	6.9794	2.7562	4.875
		g_Enterococcus.s_Enterococcus_faecalis	0.0338	0.0786	0
		g_Escherichia.s_Escherichia_coli	0.4408	0.3808	0.0345
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1194	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.087	0.187	0.0642
		g_Lactobacillus.s_Lactobacillus_reuteri	5.4926	1.0498	3.775
		g_Lactococcus.s_Lactococcus_lactis	0.8894	0.9048	1.0013
		g_Proteus.s_Proteus_mirabilis	0.0354	0.0354	0
K02446	glpX	K02446	2.0784	3.5136	5.7693
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.086	1.3112	1.7555
		g_Escherichia.s_Escherichia_coli	1.6978	0.9946	0.1693
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4658	0
		K02446unclassified	0.2946	0.742	3.8445
K03841	FBP, fbp	K03841	3.2946	3.3838	1.962
		g_Debaryomyces.s_Debaryomyces_hansenii	2.6468	1.9308	1.3525
		g_Escherichia.s_Escherichia_coli	0.613	0.5756	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8018	0
		g_Proteus.s_Proteus_mirabilis	0.0348	0.0752	0
		K03841unclassified	0	0	0.6095
K00895	pfp, PFP	K00895	0.7372	1.6748	2.925
		K00895unclassified	0.7372	1.6748	2.925
K01623	ALDO	K01623	0.726	1.7768	2.368
		g_Aerococcus.s_Aerococcus_viridans	0	1.0984	1.9128
		g_Staphylococcus.s_Staphylococcus_xylosus	0.726	0.6784	0.4552
K08093	hxlA	K08093	1.7042	0.9576	0.762
		g_Staphylococcus.s_Staphylococcus_xylosus	1.3416	0.9576	0.762
		K08093unclassified	0.3624	0	0
K05774	phnN	K05774	1.1406	1.6146	0.065
		g_Escherichia.s_Escherichia_coli	1.1406	1.4368	0.065
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1778	0
K01621	xfp, xpk	K01621	0.6404	0.8418	0.3633
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1588	0.4134	0
		g_Lactococcus.s_Lactococcus_lactis	0.4814	0.4284	0.3633
K17464	PTS-Dga-	K17464	0.38	1.3358	0
		g_Escherichia.s_Escherichia_coli	0.38	1.3358	0
K00090	ghrB	K00090	0.689	0.8118	0
		g_Escherichia.s_Escherichia_coli	0.542	0.5666	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2022	0
		g_Proteus.s_Proteus_mirabilis	0.1472	0.043	0
K17466	PTS-Dga-	K17466	0.967	0.3214	0
		g_Escherichia.s_Escherichia_coli	0.967	0.3214	0
K00131	gapN	K00131	0.4324	0.4108	0.0942
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.4106	0.3838	0.0468
		g_Lactococcus.s_Lactococcus_raffinolactis	0.022	0.0272	0.0473
K08094	hxlB	K08094	0.7366	0.1836	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.7366	0.1836	0
K16370	pfkB	K16370	0.482	0.3224	0
		g_Escherichia.s_Escherichia_coli	0.482	0.3224	0
K01690	edd	K01690	0.3174	0.4466	0
		g_Escherichia.s_Escherichia_coli	0.3174	0.1834	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2632	0
K17468	dgaE	K17468	0.2478	0.2246	0
		g_Escherichia.s_Escherichia_coli	0.2478	0.2246	0
K06151	E1.1.99.3/	K06151	0	0.3788	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3788	0

K00117	ged	K00117	0.0262	0.0596	0.0133
		g_Escherichia.s_Escherichia_coli	0.0262	0.0596	0.0133
K00134	GAPDH, ξ	K00134	116.45	99.412	138.17
		g_Aerococcus.s_Aerococcus_viridans	0	0.6716	1.3792
		g_Alistipes.s_Alistipes_shahii	0	0.5228	0.2605
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.0772	0.071	0.821
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0416	1.4388	2.0607
		g_Debaryomyces.s_Debaryomyces_hansenii	3.172	2.5974	0.9458
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1472	0.0312
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	2.9386	6.4544	5.8295
		g_Escherichia.s_Escherichia_coli	0.9366	0.6724	0.1962
		g_Eubacterium.s_Eubacterium_plexicaudatum	0.7446	1.0958	0.4758
		g_Eubacterium.s_Eubacterium_sp_14_2	11.878	5.464	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.436	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.6128	0.3468	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0754	0.0746	0.0657
		g_Lactobacillus.s_Lactobacillus_reuteri	8.1262	1.5582	4.6917
		g_Lactococcus.s_Lactococcus_lactis	1.6874	1.1442	1.2973
		g_Lactococcus.s_Lactococcus_raffinolactis	0.0768	0	0.0645
		g_Leuconostoc.s_Leuconostoc_lactis	0.0342	0	0
		g_Parabacteroides.s_Parabacteroides_goldsteinii	2.56	1.9412	5.0612
		g_Staphylococcus.s_Staphylococcus_xylosum	1.8544	1.1516	0.8488
		K00134unclassified	81.634	73.624	114.14
K01803	TPI, tpiA	K01803	119.36	89.039	123.5
		g_Aerococcus.s_Aerococcus_viridans	0	0.7992	1.4818
		g_Alistipes.s_Alistipes_shahii	0	0.437	0.2837
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.117	1.1584	2.536
		g_Debaryomyces.s_Debaryomyces_hansenii	3.2064	2.5522	1.3693
		g_Enterococcus.s_Enterococcus_faecalis	0	0	0.0877
		g_Escherichia.s_Escherichia_coli	0.893	1.3046	0.2217
		g_Klebsiella.s_Klebsiella_pneumoniae	0	1.3826	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1746	0.3862	0.1645
		g_Lactobacillus.s_Lactobacillus_helveticus	0.1702	0.2608	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	23.368	3.1208	14.652
		g_Lactobacillus.s_Lactobacillus_reuteri	16.864	3.574	8.692
		g_Lactococcus.s_Lactococcus_lactis	0.6298	0.8336	0.694
		g_Parabacteroides.s_Parabacteroides_goldsteinii	3.0124	2.4788	6.8562
		g_Staphylococcus.s_Staphylococcus_xylosum	0.4828	1.0626	0.4885
		g_Streptococcus.s_Streptococcus_thermophilus	0.2908	0.8014	0.4588
		K01803unclassified	70.154	68.886	85.519
K00927	PGK, pgk	K00927	104.67	92.638	101.81
		g_Aerococcus.s_Aerococcus_viridans	0.034	1.4142	1.0625
		g_Alistipes.s_Alistipes_finegoldii	0	0.0996	0
		g_Alistipes.s_Alistipes_shahii	0	0.7442	0.2897
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	10.749	14.979	18.296
		g_Bacteroides.s_Bacteroides_uniformis	0	5.3476	0
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0998	0.9196	1.8437
		g_Debaryomyces.s_Debaryomyces_hansenii	2.9584	1.7232	0.9713
		g_Escherichia.s_Escherichia_coli	0.5252	0.7418	0.0885
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5484	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.5312	0.4638	0.191
		g_Lactobacillus.s_Lactobacillus_helveticus	0.1592	0.158	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	20.193	3.8202	15.321
		g_Lactobacillus.s_Lactobacillus_reuteri	7.6682	1.2934	5.1313
		g_Lactococcus.s_Lactococcus_lactis	0.694	0.6538	0.4162
		g_Leuconostoc.s_Leuconostoc_lactis	0	0	0.0248
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.3188	0.3728	0.3298
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.027	0	0

	g_Proteus.s_Proteus_mirabilis	0.0588	0.0294	0
	g_Staphylococcus.s_Staphylococcus_xylosus	0.78	0.622	0.3982
	g_Streptococcus.s_Streptococcus_thermophilus	0.2012	0.6178	0.3492
	K00927unclassified	59.675	58.09	57.096
K01834	PGAM, gr K01834	101.72	45.549	98.922
	g_Alistipes.s_Alistipes_shahii	0	0.3178	0.1503
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	12.775	16.969	26.038
	g_Bacteroides.s_Bacteroides_uniformis	0	1.7704	0
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1976	1.3126	1.98
	g_Deбaryomyces.s_Deбaryomyces_hansenii	5.5856	4.8878	2.1175
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0688	0.0495
	g_Escherichia.s_Escherichia_coli	0.1946	0.172	0.1023
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4018	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.4642	0.4816	0.1457
	g_Lactobacillus.s_Lactobacillus_helveticus	0.4062	0.177	0
	g_Lactobacillus.s_Lactobacillus_johnsonii	70.648	13.232	50.664
	g_Lactobacillus.s_Lactobacillus_reuteri	7.9706	1.7778	5.8267
	g_Lactococcus.s_Lactococcus_lactis	2.022	1.9884	1.3338
	g_Leuconostoc.s_Leuconostoc_lactis	0	0.1054	0
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.4222	0.0528	0.4203
	g_Staphylococcus.s_Staphylococcus_xylosus	1.0304	0.4448	0.535
	K01834unclassified	0	1.3896	9.5588
K00016	LDH, ldh K00016	112.93	29.277	95.643
	g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.0978	0.1072	0.7808
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1856	1.5554	2.5247
	g_Enterococcus.s_Enterococcus_faecalis	0	0.175	0.033
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.6078	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.9606	0.9334	0.2585
	g_Lactobacillus.s_Lactobacillus_helveticus	0.5816	0.326	0.2458
	g_Lactobacillus.s_Lactobacillus_johnsonii	64.978	12.267	49.18
	g_Lactobacillus.s_Lactobacillus_reuteri	40.309	7.153	24.038
	g_Lactococcus.s_Lactococcus_lactis	3.4188	3.0038	2.2945
	g_Staphylococcus.s_Staphylococcus_xylosus	0.3018	0.2656	0.1492
	g_Streptococcus.s_Streptococcus_thermophilus	0.6424	0.6768	0.4148
	K00016unclassified	1.453	2.2064	15.723
K01624	FBA, fba ^A K01624	71.355	64.611	99.908
	g_Alistipes.s_Alistipes_finegoldii	0	0.1316	0.0323
	g_Alistipes.s_Alistipes_shahii	0	0.5048	0.1717
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	9.9202	13.743	19.302
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.0402	1.5246	2.332
	g_Deбaryomyces.s_Deбaryomyces_hansenii	3.6544	2.1936	0.8755
	g_Escherichia.s_Escherichia_coli	0.3402	0.2892	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5458	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2224	0.1144	0.1045
	g_Lactobacillus.s_Lactobacillus_helveticus	0.039	0.0458	0
	g_Lactobacillus.s_Lactobacillus_reuteri	8.1238	1.2318	5.6717
	g_Lactococcus.s_Lactococcus_lactis	0.7324	0.8178	0.8542
	g_Lactococcus.s_Lactococcus_raffinolactis	0.0522	0.186	0.0363
	g_Staphylococcus.s_Staphylococcus_xylosus	0.931	0.5946	0.4825
	g_Streptococcus.s_Streptococcus_thermophilus	0.6196	0.995	0.7852
	K01624unclassified	46.68	41.694	69.26
K00850	pfkA, PFKK00850	76.384	65.33	86.752
	g_Alistipes.s_Alistipes_shahii	0	0.5754	0.511
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	12.67	17.96	23.189
	g_Bacteroides.s_Bacteroides_uniformis	0	8.2692	0
	g_Deбaryomyces.s_Deбaryomyces_hansenii	2.5158	2.2884	0.9085
	g_Enterococcus.s_Enterococcus_faecalis	0	0	0.098
	g_Escherichia.s_Escherichia_coli	0.7396	0.6218	0.0327

	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2906	0.2456	0.0807
	g_Lactobacillus.s_Lactobacillus_helveticus	0.106	0.0794	0
	g_Lactobacillus.s_Lactobacillus_johnsonii	22.636	3.8092	13.481
	g_Lactobacillus.s_Lactobacillus_murinus	1.9494	2.0608	0.7917
	g_Lactococcus.s_Lactococcus_lactis	0.4936	0.5864	0.6487
	g_Proteus.s_Proteus_mirabilis	0.072	0.1116	0
	g_Staphylococcus.s_Staphylococcus_xylosus	1.002	0.5224	0.5522
	g_Streptococcus.s_Streptococcus_thermophilus	0.3052	0.5484	0.3445
	K0085Unclassified	33.604	27.651	46.114
K01810	GPI, pgi K01810	63.816	54.236	86.045
	g_Alistipes.s_Alistipes_shahii	0	0.6618	0.2498
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.5468	11.099	12.073
	g_Bacteroides.s_Bacteroides_uniformis	0	5.4874	0
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.0242	1.2746	1.868
	g_Debaryomyces.s_Debaryomyces_hansenii	3.253	2.2362	0.632
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0308	0.0222
	g_Escherichia.s_Escherichia_coli	0.7812	0.595	0.0783
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1404	0.1488	0.1422
	g_Lactobacillus.s_Lactobacillus_helveticus	0.0796	0	0.0252
	g_Lactobacillus.s_Lactobacillus_johnsonii	21.924	3.9686	14.671
	g_Lactobacillus.s_Lactobacillus_reuteri	7.2986	0.8022	4.671
	g_Lactococcus.s_Lactococcus_lactis	0.7638	0.5616	0.8135
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1478	0.1178	0.3165
	g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0198	0	0
	g_Parabacteroides.s_Parabacteroides_goldsteinii	2.869	2.7772	6.0492
	g_Proteus.s_Proteus_mirabilis	0	0.0418	0
	g_Staphylococcus.s_Staphylococcus_lentus	1.001	0.2066	0.939
	g_Staphylococcus.s_Staphylococcus_xylosus	0.717	0.7224	0.3798
	g_Streptococcus.s_Streptococcus_thermophilus	0.3926	0.2696	0.74
	K01810Unclassified	16.857	23.235	42.375
K01785	galM, GA:K01785	53.831	59.024	67.419
	g_Alistipes.s_Alistipes_shahii	0	0.3994	0.1735
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	34.095	44.93	49.274
	g_Debaryomyces.s_Debaryomyces_hansenii	5.4464	2.9546	1.7107
	g_Enterococcus.s_Enterococcus_faecalis	0.0336	0	0
	g_Escherichia.s_Escherichia_coli	1.8736	1.2534	0.0627
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2502	0
	g_Lactobacillus.s_Lactobacillus_reuteri	5.9656	1.0702	4.4913
	g_Lactococcus.s_Lactococcus_lactis	1.029	0.656	1.266
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0	0.0714	0.1002
	g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0154	0	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.1662	0.3804	0.1683
	K01785Unclassified	5.2068	7.0588	10.172
K15634	gpmB K15634	89.157	22.287	60.743
	g_Corynebacterium.s_Corynebacterium_glutamicum	0	1.1438	1.6427
	g_Debaryomyces.s_Debaryomyces_hansenii	3.1198	2.1904	0.8638
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0628	0.0473
	g_Escherichia.s_Escherichia_coli	0.5348	0.595	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3204	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	1.1286	1.9976	0.4852
	g_Lactobacillus.s_Lactobacillus_helveticus	0.1366	0.355	0.0597
	g_Lactobacillus.s_Lactobacillus_johnsonii	43.831	8.6376	31.984
	g_Lactobacillus.s_Lactobacillus_reuteri	38.857	5.41	22.877
	g_Lactococcus.s_Lactococcus_lactis	1.3598	1.004	2.5363
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1286	0.2118	0.1835
	g_Proteus.s_Proteus_mirabilis	0	0.07	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.0612	0.289	0.0625
K00845	glk K00845	59.62	48.079	62.107

		g_Aerococcus.s_Aerococcus_viridans	0	0.8894	0.8808
		g_Alistipes.s_Alistipes_shahii	0	0.554	0.2103
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	15.202	20.472	23.535
		g_Bacteroides.s_Bacteroides_uniformis	0	6.519	0
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0338	0
		g_Escherichia.s_Escherichia_coli	0.4974	0.4102	0.0325
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2464	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.5394	0.3014	0.1493
		g_Lactobacillus.s_Lactobacillus_johnsonii	29.805	6.1234	18.176
		g_Lactobacillus.s_Lactobacillus_reuteri	5.794	1.4972	3.626
		g_Lactococcus.s_Lactococcus_lactis	0.7542	0.3936	0.9335
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0	0.073
		g_Staphylococcus.s_Staphylococcus_xylosum	0.1962	0.4384	0.0423
		K00845unclassified	6.8318	10.201	14.448
K01610	E4.1.1.49,	K01610	47.831	52.05	62.892
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	10.069	13.441	15.012
		g_Bacteroides.s_Bacteroides_uniformis	0	6.1084	0
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.6914	2.1228	0.85
		g_Enterococcus.s_Enterococcus_faecalis	0	0	0.0352
		g_Escherichia.s_Escherichia_coli	0.6424	0.4978	0.0773
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4936	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.109	0.243	0.0352
		g_Parabacteroides.s_Parabacteroides_goldsteinii	5.9018	7.3852	12.762
		g_Proteus.s_Proteus_mirabilis	0.0406	0.0238	0
		g_Staphylococcus.s_Staphylococcus_xylosum	0.734	0.6802	0.2692
		K01610unclassified	26.643	21.054	33.851
K01835	pgm	K01835	42.661	45.206	52.53
		g_Aerococcus.s_Aerococcus_viridans	0.0226	1.2674	0.8535
		g_Alistipes.s_Alistipes_shahii	0	0.5396	0.2572
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.4688	9.7104	9.8247
		g_Bacteroides.s_Bacteroides_uniformis	0	4.455	0
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.1722	0.0666	1.1363
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1462	1.3018	1.773
		g_Deбaryomyces.s_Deбaryomyces_hansenii	5.6148	3.717	1.8298
		g_Enterococcus.s_Enterococcus_faecalis	0.019	0	0.0168
		g_Escherichia.s_Escherichia_coli	0.3926	0.2796	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4152	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3086	0.4444	0.2442
		g_Lactobacillus.s_Lactobacillus_reuteri	7.9652	1.576	4.6575
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0356	0	0
		g_Proteus.s_Proteus_mirabilis	0.0798	0.0866	0
		g_Staphylococcus.s_Staphylococcus_xylosum	0.4054	0.072	0.1727
		K01835unclassified	21.031	21.274	31.764
K01223	E3.2.1.86IK01223		57.945	23.996	50.551
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.093	1.2366	1.7353
		g_Enterococcus.s_Enterococcus_faecalis	0.0226	0.3232	0.101
		g_Escherichia.s_Escherichia_coli	2.2252	2.1374	0.2917
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8758	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2138	0.1334	0.0247
		g_Lactobacillus.s_Lactobacillus_helveticus	0.3086	0.2046	0.0643
		g_Lactobacillus.s_Lactobacillus_johnsonii	43.483	8.041	36.255
		g_Lactococcus.s_Lactococcus_lactis	3.5512	4.3946	3.5988
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0	0.0233
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0	0	0.1423
		K01223unclassified	8.0472	6.649	8.3145
K03737	por, nifJ	K03737	50.752	35.958	42.417
map00010_		g_Escherichia.s_Escherichia_coli	0.1124	0.055	0
Glycolysis /		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2408	0

Gluconeogenesis	K00175	korB, oorK00175	K03737unclassified	50.64	35.662	42.417
			K00175unclassified	33.585	40.981	44.244
			g_Bacteroides.s_Bacteroides_thetaiotaomicron	14.626	18.831	18.709
			g_Enterorhabdus.s_Enterorhabdus_caecimuris	0.677	1.9052	1.3792
			g_Parabacteroides.s_Parabacteroides_goldsteinii	3.824	3.7356	6.9213
			K00175unclassified	14.458	16.509	17.235
	K15633	gpml	K15633	25.374	35.77	52.876
			g_Aerococcus.s_Aerococcus_viridans	0.0772	0.9864	0.9688
			g_Alistipes.s_Alistipes_shahii	0	0.3858	0.1832
			g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.218	11.596	13.382
			g_Bacteroides.s_Bacteroides_uniformis	0	6.352	0
			g_Escherichia.s_Escherichia_coli	0.786	0.4688	0.0592
			g_Parabacteroides.s_Parabacteroides_goldsteinii	2.486	2.7384	7.4288
			g_Staphylococcus.s_Staphylococcus_xylosus	0.9952	0.7928	0.6898
			K15633unclassified	13.811	12.451	30.164
	K00873	PK, pyk	K00873	27.381	29.173	34.432
			g_Aerococcus.s_Aerococcus_viridans	0.0504	1.5808	2.5435
			g_Alistipes.s_Alistipes_shahii	0	0.3264	0.264
			g_Bacteroides.s_Bacteroides_thetaiotaomicron	8.0242	10.642	10.76
			g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.1276	0.1358	0.6548
			g_Corynebacterium.s_Corynebacterium_glutamicum	0.1882	2.5728	4.0065
			g_Debaryomyces.s_Debaryomyces_hansenii	3.9572	2.1684	1.0065
			g_Escherichia.s_Escherichia_coli	1.027	1.2106	0.0657
			g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2628	0
			g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1984	0.2148	0.0698
			g_Lactobacillus.s_Lactobacillus_helveticus	0.196	0.1222	0.0368
			g_Lactobacillus.s_Lactobacillus_murinus	2.0392	2.0868	0.4272
			g_Lactobacillus.s_Lactobacillus_reuteri	6.1448	1.2	3.222
			g_Lactococcus.s_Lactococcus_lactis	0.854	0.8276	0.3952
			g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0436	0	0
			g_Proteus.s_Proteus_mirabilis	0.108	0.0636	0
			g_Staphylococcus.s_Staphylococcus_xylosus	0.7648	0.6506	0.392
			K00873unclassified	3.6574	5.1072	10.588
	K21071	pfk, pfp	K21071	22.381	28.191	39.031
			g_Alistipes.s_Alistipes_shahii	0	0.4756	0.3247
			g_Bacteroides.s_Bacteroides_thetaiotaomicron	8.268	12.126	8.9795
			g_Corynebacterium.s_Corynebacterium_glutamicum	0.1612	1.4986	1.8255
			K21071unclassified	13.952	14.09	27.901
	K00382	DLD, lpd, K00382	K00382	20.384	22.183	35.255
			g_Aerococcus.s_Aerococcus_viridans	0.0282	1.1376	1.1237
			g_Alistipes.s_Alistipes_shahii	0	0.4702	0.1685
			g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.1822	7.1946	8.3845
			g_Corynebacterium.s_Corynebacterium_glutamicum	0.1736	1.419	2.1947
			g_Debaryomyces.s_Debaryomyces_hansenii	3.4276	2.2896	1.013
			g_Enterococcus.s_Enterococcus_faecalis	0	2.3126	0.0483
			g_Escherichia.s_Escherichia_coli	0.9426	0.9026	0.0855
			g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2652	0
			g_Lactobacillus.s_Lactobacillus_reuteri	6.6142	1.0754	3.6773
			g_Lactococcus.s_Lactococcus_lactis	1.1106	0.8538	0.6305
			g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1454	0.1552	0.1507
			g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0224	0	0
			g_Proteus.s_Proteus_mirabilis	0	0.0206	0
			g_Staphylococcus.s_Staphylococcus_xylosus	0.8618	0.5668	0.623
			g_Streptococcus.s_Streptococcus_thermophilus	0.5502	0.3934	0.3417
			K00382unclassified	1.3252	3.126	16.813
	K11645	fbaB	K11645	12.401	29.494	27.211
			g_Alistipes.s_Alistipes_shahii	0	0.3114	0.1618
			g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.6224	7.5208	9.1868

		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	3.6964	13.415	10.305
		<i>g_Escherichia.s_Escherichia_coli</i>	0.7352	0.5274	0.0588
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.7008	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0	0.0946	0
		K11645unclassified	2.3462	6.9238	7.4983
K13953	adhP	K13953	24.754	11.209	21.74
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	8.0348	6.3436	3.4947
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0	0.123	0.0613
		<i>g_Escherichia.s_Escherichia_coli</i>	0.1366	0.2134	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.1098	0
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	15.045	2.703	8.4713
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.8236	0.5018	0.6493
		<i>g_Streptococcus.s_Streptococcus_thermophilus</i>	0.3152	0.252	0.538
		K13953unclassified	0.3992	0.9626	8.5253
K00174	korA, oor ₂	K00174	10.876	14.79	19.439
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.4878	0.239
		<i>g_Bacteroides.s_Bacteroides_uniformis</i>	0	0.4094	0
		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	1.0782	3.0664	2.6482
		<i>g_Parabacteroides.s_Parabacteroides_goldsteinii</i>	2.827	2.3198	5.6347
		K00174unclassified	6.971	8.5066	10.917
K00844	HK	K00844	14.981	16.244	12.087
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.6494	9.8578	9.5063
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	8.331	6.3866	2.58
K00128	ALDH	K00128	12.097	10.635	16.006
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0.028	0.5772	1.2963
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.5984	0.0972
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	10.967	8.1784	3.5058
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0394	0	0
		K00128unclassified	1.0616	1.2814	11.107
K04041	fbp3	K04041	8.6184	10.539	17.74
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0.0518	0.1834	0
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.7366	0.713	0.6677
		<i>g_Staphylococcus.s_Staphylococcus_lentus</i>	0.603	0.419	1.1113
		K04041unclassified	7.2272	9.2236	15.96
K01895	ACSS, acs	K01895	5.473	14.73	15.043
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.4782	0.2313
		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	2.8864	9.2162	7.1207
		<i>g_Escherichia.s_Escherichia_coli</i>	0	0.033	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.3264	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosum</i>	0.8274	0.3712	0.4298
		K01895unclassified	1.7588	4.3048	7.261
K00002	AKR1A1, K00002		17.488	11.275	6.0695
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	17.278	11.275	6.0695
		K00002unclassified	0.2108	0	0
K00627	DLAT, ac	K00627	11.558	7.6654	7.9968
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0.0236	1.24	1.0133
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.9364	2.8058	1.2058
		<i>g_Escherichia.s_Escherichia_coli</i>	0.2836	0.1904	0.0152
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.2664	0
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	5.876	1.5222	3.6615
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.8062	0.6622	0.5928
		<i>g_Leuconostoc.s_Leuconostoc_mesenteroides</i>	0.1508	0.058	0.244
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0234	0	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosum</i>	1.4576	0.9206	1.068
		K00627unclassified	0	0	0.196
K00170	porB	K00170	9.322	7.7956	8.5498
		K00170unclassified	9.322	7.7956	8.5498
K00162	PDHB, pd	K00162	10.545	6.0772	6.5642

		g_Aerococcus.s_Aerococcus_viridans	0	1.5022	1.1098
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.1704	2.3084	1.2042
		g_Lactobacillus.s_Lactobacillus_reuteri	6.4646	1.1136	3.1885
		g_Lactococcus.s_Lactococcus_lactis	0.664	0.8478	0.833
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0956	0.305	0.2283
		K00162unclassified	0.1506	0	0
K00161	PDHA, pd	K00161	10.77	4.42	5.9217
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.5882	1.7386	1.1207
		g_Lactobacillus.s_Lactobacillus_reuteri	6.3764	1.3214	3.7093
		g_Lactococcus.s_Lactococcus_lactis	0.6122	0.926	0.8008
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1928	0.434	0.1817
		K00161unclassified	0	0	0.1092
K00001	E1.1.1.1, ε	K00001	8.0324	2.3946	7.003
		g_Corynebacterium.s_Corynebacterium_glutamicum	0	0.3546	1.0567
		g_Lactobacillus.s_Lactobacillus_reuteri	7.2524	1.2574	4.9153
		g_Lactococcus.s_Lactococcus_lactis	0.78	0.567	0.5658
		K00001unclassified	0	0.2156	0.4652
K01596	E4.1.1.32,	K01596	0.5712	2.2956	12.637
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.19	1.2624	2.4665
		K01596unclassified	0.3812	1.0332	10.17
K01568	PDC, pdc	K01568	8.017	6.3528	2.6737
		g_Deбaryomyces.s_Deбaryomyces_hansenii	7.9982	6.3528	2.6737
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0188	0	0
K00138	aldB	K00138	0.9774	1.7876	9.8015
		g_Escherichia.s_Escherichia_coli	0.566	0.7036	0.0383
		K00138unclassified	0.4114	1.084	9.7633
K00163	aceE	K00163	0.1566	2.3746	9.8505
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1566	1.1216	2.1127
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2932	0
		K00163unclassified	0	0.9594	7.7377
K02446	glpX	K02446	2.0784	3.5136	5.7693
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.086	1.3112	1.7555
		g_Escherichia.s_Escherichia_coli	1.6978	0.9946	0.1693
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4658	0
		K02446unclassified	0.2946	0.742	3.8445
K00172	porG	K00172	5.0798	1.4052	4.376
		K00172unclassified	5.0798	1.4052	4.376
K00121	frmA, AD	K00121	5.1084	4.044	1.3238
		g_Aerococcus.s_Aerococcus_viridans	0	0.5824	0.4003
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.2122	2.3226	0.692
		g_Escherichia.s_Escherichia_coli	0.7642	0.2856	0.0807
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4184	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.9582	0.4354	0.1512
		K00121unclassified	0.1738	0	0
K04072	adhE	K04072	2.8668	2.2428	4.4042
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3986	0
		K04072unclassified	2.8668	1.8442	4.4042
K00150	gap2	K00150	3.7306	1.8514	3.2198
		K00150unclassified	3.7306	1.8514	3.2198
K03841	FBP, fbp	K03841	3.2946	3.3838	1.962
		g_Deбaryomyces.s_Deбaryomyces_hansenii	2.6468	1.9308	1.3525
		g_Escherichia.s_Escherichia_coli	0.613	0.5756	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8018	0
		g_Proteus.s_Proteus_mirabilis	0.0348	0.0752	0
		K03841unclassified	0	0	0.6095
K01792	E5.1.3.15	K01792	3.2492	3.0398	0.9442
		g_Deбaryomyces.s_Deбaryomyces_hansenii	2.528	2.8516	0.9442
		g_Escherichia.s_Escherichia_coli	0.7212	0.1884	0

K00129	E1.2.1.5	K00129	3.4008	2.2524	1.1298
		g_Debaryomyces.s_Debaryomyces_hansenii	3.4008	2.2524	1.1298
K00895	pfp, PFP	K00895	0.7372	1.6748	2.925
		K00895unclassified	0.7372	1.6748	2.925
K20866	yihX	K20866	1.5808	2.938	1.1372
		g_Alistipes.s_Alistipes_shahii	0	1.1484	0.3617
		g_Escherichia.s_Escherichia_coli	0.9596	0.9136	0.2057
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.401	0
		g_Lactococcus.s_Lactococcus_lactis	0.621	0.4752	0.57
K01623	ALDO	K01623	0.726	1.7768	2.368
		g_Aerococcus.s_Aerococcus_viridans	0	1.0984	1.9128
		g_Staphylococcus.s_Staphylococcus_xylosus	0.726	0.6784	0.4552
K01222	E3.2.1.86	K01222	0.5118	2.964	1.1765
		g_Aerococcus.s_Aerococcus_viridans	0	0.5556	0.8328
		g_Escherichia.s_Escherichia_coli	0.5118	0.3456	0.047
		g_Klebsiella.s_Klebsiella_pneumoniae	0	1.725	0
		K01222unclassified	0	0.3376	0.2967
K00886	ppgK	K00886	0.1222	0.5304	2.3575
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1222	0.5304	2.3575
K02777	PTS-Glc-IK02777	K02777	1.1544	1.135	0.7515
		g_Enterococcus.s_Enterococcus_faecalis	0	0.107	0
		g_Escherichia.s_Escherichia_coli	0	0.3902	0.1473
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1794	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3666	0.1904	0.1717
		g_Staphylococcus.s_Staphylococcus_xylosus	0.698	0.2684	0.4325
		K02777unclassified	0.0898	0	0
K02791	PTS-MalCK02791	K02791	0.7214	1.2302	0.0375
		g_Enterococcus.s_Enterococcus_faecalis	0.042	0.126	0.0375
		g_Escherichia.s_Escherichia_coli	0.6164	0.5428	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4972	0
		g_Proteus.s_Proteus_mirabilis	0.063	0.0642	0
K00169	porA	K00169	1.3208	0.6024	0
		K00169unclassified	1.3208	0.6024	0
K02779	PTS-Glc-IK02779	K02779	0.9198	0.655	0.0867
		g_Escherichia.s_Escherichia_coli	0.7478	0.3854	0.024
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2696	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	0.1488	0	0.0627
		g_Proteus.s_Proteus_mirabilis	0.023	0	0
K13954	yiaY	K13954	0.9	0.5192	0.053
		g_Escherichia.s_Escherichia_coli	0.9	0.5192	0.053
K00171	porD	K00171	0.5288	0.1202	0.4772
		K00171unclassified	0.5288	0.1202	0.4772
K04022	eutG	K04022	0.5706	0.5538	0.0257
		g_Escherichia.s_Escherichia_coli	0.5706	0.5538	0.0257
K00131	gapN	K00131	0.4324	0.4108	0.0942
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.4106	0.3838	0.0468
		g_Lactococcus.s_Lactococcus_raffinolactis	0.022	0.0272	0.0473
K01085	agp	K01085	0.3738	0.436	0
		g_Escherichia.s_Escherichia_coli	0.3738	0.436	0
K16370	pfkB	K16370	0.482	0.3224	0
		g_Escherichia.s_Escherichia_coli	0.482	0.3224	0
K02753	PTS-Asc-IK02753	K02753	0.2218	0.5076	0.0412
		g_Escherichia.s_Escherichia_coli	0.2218	0.3758	0.0412
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1318	0
K02778	PTS-Glc-IK02778	K02778	0	0.1794	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1794	0
K02112	ATPF1B, K02112	K02112	98.436	93.726	131.56
		g_Bacteroides.s_Bacteroides_uniformis	0	3.4052	0

	g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.225	0.4002	1.403
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.3216	1.293	4.1557
	g_Enterococcus.s_Enterococcus_faecalis	0.0238	0.1438	0
	g_Enterorhabdus.s_Enterorhabdus_caecimuris	3.6526	13.046	10.005
	g_Escherichia.s_Escherichia_coli	0.7378	0.986	0.0897
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3228	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3058	0.3382	0.1125
	g_Lactobacillus.s_Lactobacillus_helveticus	0.1332	0.2118	0.0648
	g_Lactobacillus.s_Lactobacillus_johnsonii	21.084	3.9476	13.35
	g_Lactobacillus.s_Lactobacillus_murinus	2.801	2.4508	0.4555
	g_Lactobacillus.s_Lactobacillus_reuteri	7.1878	1.3004	4.2463
	g_Lactococcus.s_Lactococcus_lactis	0.6442	0.7202	0.8208
	g_Lactococcus.s_Lactococcus_raffinolactis	0	0.05	0.1187
	g_Leuconostoc.s_Leuconostoc_lactis	0	0	0.171
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1622	0.1962	0.325
	g_Parabacteroides.s_Parabacteroides_goldsteinii	2.5736	2.85	6.5953
	g_Proteus.s_Proteus_mirabilis	0	0.0244	0
	g_Staphylococcus.s_Staphylococcus_xylosus	1.0162	0.4998	0.9167
	g_Streptococcus.s_Streptococcus_thermophilus	0.7204	0.4336	0.5678
	K02112unclassified	56.847	61.106	88.163
K02111	ATPF1A, K02111	103.96	94.655	109.89
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	4.7318	7.3988	7.3517
	g_Bacteroides.s_Bacteroides_uniformis	0	4.7154	0
	g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.2046	0.1366	0.9292
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1976	1.1302	2.8743
	g_Enterococcus.s_Enterococcus_faecalis	0.0424	0.046	0.0188
	g_Enterorhabdus.s_Enterorhabdus_caecimuris	3.7756	11.06	8.9457
	g_Eubacterium.s_Eubacterium_plexicaudatum	0.1222	0.2798	0.0648
	g_Eubacterium.s_Eubacterium_sp_14_2	6.3678	1.9814	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2304	0.4474	0.0435
	g_Lactobacillus.s_Lactobacillus_helveticus	0.216	0.2324	0
	g_Lactobacillus.s_Lactobacillus_johnsonii	23.291	3.5836	14.424
	g_Lactobacillus.s_Lactobacillus_murinus	2.6808	2.7196	0.457
	g_Lactobacillus.s_Lactobacillus_reuteri	6.718	1.4574	4.7718
	g_Lactococcus.s_Lactococcus_lactis	0.6072	0.912	0.7038
	g_Leuconostoc.s_Leuconostoc_lactis	0	0.0218	0.0223
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1394	0.0958	0.252
	g_Parabacteroides.s_Parabacteroides_goldsteinii	2.9232	3.0672	6.4908
	g_Proteus.s_Proteus_mirabilis	0.0214	0.0214	0
	g_Staphylococcus.s_Staphylococcus_lentus	0.7886	0.199	2.1533
	g_Streptococcus.s_Streptococcus_thermophilus	0.3046	0.6354	0.869
	K02111unclassified	50.597	54.514	59.522
K02110	ATPF0C, K02110	72.076	76.67	102.83
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	11.382	17.457	20.504
	g_Bacteroides.s_Bacteroides_uniformis	0	6.0688	0
	g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.8676	0.3632	1.8918
	g_Enterorhabdus.s_Enterorhabdus_caecimuris	1.9074	7.4686	11.133
	g_Escherichia.s_Escherichia_coli	1.6036	1.0384	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4066	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3668	0	0
	g_Lactobacillus.s_Lactobacillus_johnsonii	28.568	3.6592	16.126
	g_Lactobacillus.s_Lactobacillus_reuteri	7.851	0.793	3.5573
	g_Lactococcus.s_Lactococcus_lactis	3.6404	1.7782	0.1968
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0	0	0.3792
	g_Staphylococcus.s_Staphylococcus_xylosus	0.6132	1.6826	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.2762	0	0
	K02110unclassified	15	35.954	49.046
K02118	ATPVB, nK02118	49.474	51.37	57.854

	g_Aerococcus.s_Aerococcus_viridans	0	1.8206	2.6375
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	9.7832	14.126	15.428
	g_Bacteroides.s_Bacteroides_uniformis	0	6.6796	0
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0284	0.065
	K02118unclassified	39.692	28.715	39.723
K02115	ATPF1G, K02115	47.89	39.191	57.249
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.6242	7.9288	10.549
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.0904	1.5898	2.499
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0974	0
	g_Enterorhabdus.s_Enterorhabdus_caecimuris	3.9838	9.9508	8.2223
	g_Escherichia.s_Escherichia_coli	0.5064	0.7136	0.0743
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5788	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1606	0.3982	0.0748
	g_Lactobacillus.s_Lactobacillus_helveticus	0.119	0.157	0.0737
	g_Lactobacillus.s_Lactobacillus_johnsonii	19.614	2.55	12.513
	g_Lactobacillus.s_Lactobacillus_reuteri	6.3612	0.9096	4.1032
	g_Lactococcus.s_Lactococcus_lactis	0.6038	0.6834	0.43
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.3824	0.0876	0.3428
	g_Staphylococcus.s_Staphylococcus_xylosus	1.0732	1.1532	0.5905
	g_Streptococcus.s_Streptococcus_thermophilus	0.2564	0.6384	0.6788
	K02115unclassified	8.1146	11.754	17.098
K02109	ATPF0B, K02109	43.798	21.823	38.752
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.8178	10.379	13.567
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0968	0
	g_Escherichia.s_Escherichia_coli	1.2256	1.2394	0.0825
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5232	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0	0.1808	0
	g_Lactobacillus.s_Lactobacillus_helveticus	0.2902	0	0.0843
	g_Lactobacillus.s_Lactobacillus_johnsonii	23.932	3.8216	12.906
	g_Lactobacillus.s_Lactobacillus_reuteri	7.1762	0.9718	4.1738
	g_Lactococcus.s_Lactococcus_lactis	0.4708	0.6732	0.818
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.5802	0.5912	0.4038
	g_Proteus.s_Proteus_mirabilis	0	0.1084	0
	g_Staphylococcus.s_Staphylococcus_xylosus	1.2674	0.6722	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.5972	0.4878	0.5053
	K02109unclassified	2.44	2.0782	6.2112
K02113	ATPF1D, K02113	39.941	22	41.433
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.598	6.902	8.981
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.1066	1.774	2.5025
	g_Enterococcus.s_Enterococcus_faecalis	0	0.2818	0
	g_Escherichia.s_Escherichia_coli	1.042	0.9914	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.558	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2778	0.3982	0.298
	g_Lactobacillus.s_Lactobacillus_helveticus	0	0.2492	0
	g_Lactobacillus.s_Lactobacillus_johnsonii	21.665	4.256	12.827
	g_Lactobacillus.s_Lactobacillus_reuteri	7.5096	1.3952	4.9758
	g_Lactococcus.s_Lactococcus_lactis	0.4766	0.8266	0.8958
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.2272	0.146	0.1545
	g_Proteus.s_Proteus_mirabilis	0.0774	0	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.4492	0.5966	1.3185
	K02113unclassified	1.5122	3.625	9.4792
K02117	ATPVA, rK02117	24.645	24.085	37.136
	g_Aerococcus.s_Aerococcus_viridans	0.0658	1.7388	2.2952
	g_Alistipes.s_Alistipes_shahii	0	0.5638	0.2003
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.8382	8.7194	10.835
	g_Enterococcus.s_Enterococcus_faecalis	0	0.044	0
	g_Parabacteroides.s_Parabacteroides_goldsteinii	2.4448	1.7756	4.5965
	K02117unclassified	15.295	11.243	19.209

K00240	sdhB, frdE	K00240	14.893	31.011	38.048
		g_Alistipes.s_Alistipes_shahii	0	0.4438	0.3353
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	11.481	18.025	22.65
		g_Bacteroides.s_Bacteroides_uniformis	0	5.6666	0
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0592	1.9436	2.0935
		g_Escherichia.s_Escherichia_coli	0.616	0.6276	0.0937
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.244	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.6738	0.6344	0.412
		K00240unclassified	2.0626	3.4252	12.463
K02114	ATPF1E,	K02114	34.515	9.8572	27.06
		g_Corynebacterium.s_Corynebacterium_glutamicum	0	1.8458	1.4602
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1366	0
		g_Escherichia.s_Escherichia_coli	0	0.3678	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5196	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3972	0.394	0.2052
		g_Lactobacillus.s_Lactobacillus_helveticus	0	0.2146	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	23.854	3.599	15.735
		g_Lactobacillus.s_Lactobacillus_reuteri	8.3092	1.2308	3.3542
		g_Lactococcus.s_Lactococcus_lactis	0.364	0.8828	0.859
		g_Staphylococcus.s_Staphylococcus_xylosus	1.3032	0.542	0.7442
		g_Streptococcus.s_Streptococcus_thermophilus	0.2868	0.1242	0.4093
		K02114unclassified	0	0	4.2927
K02108	ATPF0A,	K02108	17.512	17.507	29.142
		g_Enterococcus.s_Enterococcus_faecalis	0.1568	0	0.0458
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	1.7894	7.8162	5.1288
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.445	0.6216	0.0533
		g_Lactobacillus.s_Lactobacillus_reuteri	7.6816	1.0696	5.6058
		g_Lactococcus.s_Lactococcus_lactis	0.9068	0.7536	0.909
		g_Leuconostoc.s_Leuconostoc_lactis	0	0	0.0922
		g_Proteus.s_Proteus_mirabilis	0	0.0516	0
		g_Staphylococcus.s_Staphylococcus_xylosus	1.0328	0.3292	0.5708
		K02108unclassified	5.4992	6.8648	16.737
K00244	frdA	K00244	28.686	11.35	23.372
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	0.0288	0	0
		g_Escherichia.s_Escherichia_coli	0.569	0.6034	0.0718
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3346	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.7546	0.7106	0.0718
		g_Lactobacillus.s_Lactobacillus_helveticus	0.041	0.226	0.0488
		g_Lactobacillus.s_Lactobacillus_johnsonii	17.859	3.7252	12.137
		g_Lactobacillus.s_Lactobacillus_reuteri	5.6926	1.197	3.7872
		g_Lactococcus.s_Lactococcus_lactis	0.6842	0.4684	0.4605
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0794	0.1248	0.3245
		g_Proteus.s_Proteus_mirabilis	0	0.038	0
		K00244unclassified	2.9772	3.9218	6.4703
K15986	ppaC	K15986	25.384	9.2804	20.489
		g_Aerococcus.s_Aerococcus_viridans	0	0.8218	0.4442
		g_Enterococcus.s_Enterococcus_faecalis	0	0.0448	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2746	0.4456	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0358	0.2494	0
		g_Lactobacillus.s_Lactobacillus_johnsonii	17.373	3.308	12.447
		g_Lactobacillus.s_Lactobacillus_reuteri	5.2754	1.3756	3.8095
		g_Lactococcus.s_Lactococcus_lactis	0.7232	1.1456	0.5972
		g_Staphylococcus.s_Staphylococcus_xylosus	0.5902	0.5422	0.6088
		g_Streptococcus.s_Streptococcus_thermophilus	0.3316	0.5948	0.4992
		K15986unclassified	0.7794	0.7522	2.0835
K02121	ATPVE,	nK02121	12.784	17.628	21.166
		g_Aerococcus.s_Aerococcus_viridans	0	0.922	1.8152
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.3076	9.8224	10.267

		K02121unclassified	5.4766	6.8834	9.0835
K00330	nuoA	K00330	11.483	16.562	21.477
		g_Alistipes.s_Alistipes_shahii	0	0.1374	0.1483
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	10.893	15.332	19.738
		g_Escherichia.s_Escherichia_coli	0.3934	0.9266	0.0902
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1654	0
		g_Proteus.s_Proteus_mirabilis	0.1962	0	0
		K00330unclassified	0	0	1.5007
K00239	sdhA, frdA	K00239	7.0002	7.6212	31.44
		g_Alistipes.s_Alistipes_shahii	0	0.571	0.2583
		g_Escherichia.s_Escherichia_coli	0.0348	0	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2056	0
		g_Staphylococcus.s_Staphylococcus_xylosus	1.3136	0.7782	0.3828
		K00239unclassified	5.6518	6.0658	30.799
K00340	nuoK	K00340	9.349	16.692	21.466
		g_Alistipes.s_Alistipes_shahii	0	0	0.3968
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.8202	16.465	21.069
		g_Escherichia.s_Escherichia_coli	1.5288	0.2268	0
K00339	nuoJ	K00339	11.223	14.965	18.12
		g_Alistipes.s_Alistipes_shahii	0	0.7142	0.6313
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.626	10.186	12.264
		g_Escherichia.s_Escherichia_coli	0.7986	0.3922	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1822	0
		K00339unclassified	2.7986	3.4896	5.2243
K00331	nuoB	K00331	9.289	21.161	12.784
		g_Alistipes.s_Alistipes_shahii	0	0.178	0.06
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.1394	11.389	9.3475
		g_Bacteroides.s_Bacteroides_uniformis	0	7.6802	0
		g_Escherichia.s_Escherichia_coli	0.4048	0.4534	0.235
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.127	0
		g_Proteus.s_Proteus_mirabilis	0.0568	0.0528	0
		K00331unclassified	1.688	1.2814	3.1417
K02124	ATPVK, r	K02124	13.82	12.57	15.205
		g_Aerococcus.s_Aerococcus_viridans	0	0.6324	1.6078
		g_Parabacteroides.s_Parabacteroides_goldsteinii	2.6336	2.1766	5.8732
		K02124unclassified	11.187	9.7606	7.7238
K00342	nuoM	K00342	10.087	11.312	18.588
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.9424	7.6446	9.4178
		g_Escherichia.s_Escherichia_coli	0.7314	0.7548	0.0622
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.166	0
		g_Proteus.s_Proteus_mirabilis	0.0216	0.02	0
		K00342unclassified	2.3912	2.7272	9.108
K00337	nuoH	K00337	9.1102	14.143	16.906
		g_Alistipes.s_Alistipes_shahii	0	0.817	0.0897
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.5014	9.6448	10.338
		g_Escherichia.s_Escherichia_coli	0.2348	0.2304	0.0642
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2964	0
		g_Proteus.s_Proteus_mirabilis	0.18	0	0
		K00337unclassified	3.1942	3.154	6.4143
K00338	nuoI	K00338	9.5344	14.411	15.688
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.8838	9.0748	10.831
		g_Escherichia.s_Escherichia_coli	0.2892	0.6836	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4042	0
		K00338unclassified	2.3616	4.248	4.8568
K13378	nuoCD	K13378	8.3176	13.32	15.843
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	5.6746	8.326	9.0477
		g_Escherichia.s_Escherichia_coli	0.053	0.1586	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.494	0

		K13378unclassified	2.59	4.3412	6.7952
K02126	ATPeF0A	K02126	13.652	14.017	10.219
		K02126unclassified	13.652	14.017	10.219
K00425	cydA	K00425	12.253	11.262	11.144
		<i>g_Enterorhabdus.s_Enterorhabdus_caecimuris</i>	1.662	4.5306	3.7342
		<i>g_Escherichia.s_Escherichia_coli</i>	1.106	0.8438	0.0765
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.8786	0
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	7.1802	1.1582	3.7757
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.3908	0.6694	0.9513
		<i>g_Leuconostoc.s_Leuconostoc_mesenteroides</i>	0.1292	0.1716	0.2077
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0252	0.1446	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.7954	0.4752	0.3827
		K00425unclassified	0.9644	2.3902	2.0162
K00343	nuoN	K00343	8.349	12.201	13.427
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.019	8.0784	8.931
		<i>g_Escherichia.s_Escherichia_coli</i>	0.0866	0.1562	0.0203
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.4044	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0	0.0528	0
		K00343unclassified	2.2432	3.5086	4.4757
K01507	ppa	K01507	8.1554	9.5068	13.061
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0	1.3594	2.7235
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	6.4774	4.6446	2.4105
		<i>g_Escherichia.s_Escherichia_coli</i>	0.308	0.9144	0
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.5886	0.1774	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0788	0	0
		K01507unclassified	0.7028	2.4112	7.9267
K00426	cydB	K00426	9.8896	5.7154	12.992
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.0448	0.9816	2.1815
		<i>g_Escherichia.s_Escherichia_coli</i>	0.0888	0.1878	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.2312	0
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	6.606	1.6418	4.3112
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.2194	0.4238	0.7577
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0296	0.1546	0
		<i>g_Staphylococcus.s_Staphylococcus_lentus</i>	0.9858	0	0.9058
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	0.6318	0.2594	0.471
		K00426unclassified	1.2834	1.8352	4.3652
K03885	ndh	K03885	9.7486	4.6112	13.479
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.144	1.087	1.7922
		<i>g_Escherichia.s_Escherichia_coli</i>	0.3572	0.4914	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.2026	0
		<i>g_Lactobacillus.s_Lactobacillus_reuteri</i>	7.2792	1.087	3.724
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.3864	0.3262	0.3235
		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0.0154	0.0382	0.1258
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0258	0.0302	0
		<i>g_Staphylococcus.s_Staphylococcus_xylosus</i>	1.0522	0.7596	0.4972
		K03885unclassified	0.4884	0.589	7.0158
K00937	ppk	K00937	7.076	11.323	9.7553
		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0.0354	0.9894	0.5393
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.5552	0
		<i>g_Lactobacillus.s_Lactobacillus_delbrueckii</i>	0.1584	0.307	0.1805
		K00937unclassified	6.8818	9.4706	9.0357
K03883	ND5	K03883	10.686	8.6272	5.9955
		K03883unclassified	10.686	8.6272	5.9955
map00190_	K02128	ATPeF0C.K02128	7.9892	9.6284	6.3762
Oxidative		K02128unclassified	7.9892	9.6284	6.3762
phosphoryla	K02120	ATPVD, rK02120	5.014	4.9238	12.219
tion		<i>g_Aerococcus.s_Aerococcus_viridans</i>	0	1.6714	1.9662
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.2414	0.1953

		g_Enterococcus.s_Enterococcus_faecalis	0	0	0.0547
		K02120unclassified	5.014	3.0114	10.003
K02257	COX10, c	K02257	5.8074	5.878	9.3303
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0864	1.332	2.2377
		g_Deбaryomyces.s_Deбaryomyces_hansenii	3.4132	2.0548	1.3235
		g_Escherichia.s_Escherichia_coli	0.5316	0.612	0.036
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.335	0
		g_Staphylococcus.s_Staphylococcus_xylosus	1.3784	0.6194	0.1567
		K02257unclassified	0.398	0.925	5.5768
K03881	ND4	K03881	7.8964	6.4352	5.1072
		K03881unclassified	7.8964	6.4352	5.1072
K03880	ND3	K03880	7.5052	4.9704	4.5932
		K03880unclassified	7.5052	4.9704	4.5932
K22468	ppk2	K22468	1.1806	4.4204	9.4632
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1738	3.833	4.6855
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.0522	0
		K22468unclassified	1.0068	0.5354	4.7777
K02261	COX2	K02261	7.1492	5.3382	2.7168
		K02261unclassified	7.1492	5.3382	2.7168
K03955	NDUFAB	K03955	5.497	4.8882	4.2598
		g_Deбaryomyces.s_Deбaryomyces_hansenii	5.497	4.8882	4.0805
		K03955unclassified	0	0	0.1793
K03879	ND2	K03879	8.5194	4.3878	1.899
		K03879unclassified	8.5194	4.3878	1.899
K02256	COX1	K02256	5.817	5.6252	2.7392
		K02256unclassified	5.817	5.6252	2.7392
K02259	COX15, c	K02259	4.1624	3.3678	5.5392
		g_Corynebacterium.s_Corynebacterium_glutamicum	0	1.0748	2.2192
		g_Deбaryomyces.s_Deбaryomyces_hansenii	2.8108	1.9322	0.746
		g_Staphylococcus.s_Staphylococcus_xylosus	0.8134	0.3608	0.4335
		K02259unclassified	0.5384	0	2.1407
K03889	qcrC	K03889	0.1518	2.159	9.7372
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.1518	1.298	2.2353
		K03889unclassified	0	0.8608	7.5017
K02275	coxB, cta	K02275	0.0382	1.6534	9.972
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0382	1.0304	2.6683
		K02275unclassified	0	0.6228	7.3035
K02276	coxC, cta	K02276	0	2.2432	9.4893
		g_Corynebacterium.s_Corynebacterium_glutamicum	0	1.3666	1.5575
		K02276unclassified	0	0.8768	7.9318
K02155	ATPeV0	K02155	6.3264	4.207	2.1213
		g_Deбaryomyces.s_Deбaryomyces_hansenii	6.3264	4.207	2.1213
K03891	qcrB	K03891	0.299	2.17	7.9353
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0726	1.0768	2.1918
		K03891unclassified	0.2264	1.0932	5.7435
K02274	coxA, cta	K02274	0.0974	1.8744	8.3382
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0974	1.2426	2.7447
		K02274unclassified	0	0.6316	5.5933
K03882	ND4L	K03882	5.2786	5.4538	0.9842
		K03882unclassified	5.2786	5.4538	0.9842
K00237	SDHD, SIK	K00237	5.01	3.9836	2.3243
		g_Deбaryomyces.s_Deбaryomyces_hansenii	5.01	3.9836	2.3243
K03890	qcrA	K03890	0.132	2.3752	7.5955
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.132	1.4558	2.2765
		K03890unclassified	0	0.9194	5.3193
K02122	ATPVF, n	K02122	2.5832	3.1268	3.9758
		g_Aerococcus.s_Aerococcus_viridans	0	2.1178	3.165
		K02122unclassified	2.5832	1.009	0.8108

K02149	ATPeV1DK02149		3.1544	3.1062	2.8232
	g__Debaryomyces.s__Debaryomyces_hansenii		2.9708	2.1482	1.7097
	K02149unclassified		0.1834	0.9578	1.1135
K02267	COX6B K02267		2.359	3.84	2.2417
	g__Debaryomyces.s__Debaryomyces_hansenii		2.0142	2.8986	1.4113
	K02267unclassified		0.3446	0.9416	0.8303
K00411	UQCRFS1K00411		5.1802	2.1064	1.1987
	g__Debaryomyces.s__Debaryomyces_hansenii		2.762	2.1064	0.7528
	K00411unclassified		2.4182	0	0.4458
K03941	NDUFS8 K03941		4.802	2.7842	0.894
	g__Debaryomyces.s__Debaryomyces_hansenii		4.5554	2.2798	0.6385
	K03941unclassified		0.2468	0.5046	0.2555
K02143	ATPeFK, K02143		4.82	2.8672	0.7398
	g__Debaryomyces.s__Debaryomyces_hansenii		4.82	2.8672	0.5447
	K02143unclassified		0	0	0.1952
K02269	COX7 K02269		1.812	4.554	1.4372
	g__Debaryomyces.s__Debaryomyces_hansenii		1.812	4.554	1.4372
K03939	NDUFS6 K03939		2.8504	2.0074	2.692
	g__Debaryomyces.s__Debaryomyces_hansenii		2.8504	2.0074	2.692
K03942	NDUFV1 K03942		2.8384	2.7506	2.0825
	g__Debaryomyces.s__Debaryomyces_hansenii		2.8384	2.053	1.1425
	K03942unclassified		0	0.6976	0.94
K00419	QCR9, UCK00419		3.8724	3.986	0
	g__Debaryomyces.s__Debaryomyces_hansenii		3.8724	3.986	0
K00241	sdhC, frdCK00241		2.3262	1.5492	3.1307
	g__Escherichia.s__Escherichia_coli		0.906	0.349	0
	g__Klebsiella.s__Klebsiella_pneumoniae		0	0.469	0
	g__Staphylococcus.s__Staphylococcus_xylosum		1.2466	0.335	0.3593
	K00241unclassified		0.1734	0.3962	2.7713
K00418	QCR8, UCK00418		3.4894	3.5712	0.4478
	g__Debaryomyces.s__Debaryomyces_hansenii		3.4894	3.5712	0.4478
K03878	ND1 K03878		1.6982	3.0762	2.3197
	K03878unclassified		1.6982	3.0762	2.3197
K03935	NDUFS2 K03935		2.7368	3.2056	1.3448
	g__Debaryomyces.s__Debaryomyces_hansenii		2.7368	2.455	0.8578
	K03935unclassified		0	0.7504	0.487
K02262	COX3 K02262		3.7226	3.151	0.5518
	K02262unclassified		3.7226	3.151	0.5518
K00413	CYC1, CYK00413		2.8294	2.4348	1.6525
	g__Debaryomyces.s__Debaryomyces_hansenii		2.8294	1.9108	1.0755
	K00413unclassified		0	0.5242	0.577
K02263	COX4 K02263		3.6022	2.5018	0.9483
	g__Debaryomyces.s__Debaryomyces_hansenii		3.6022	2.5018	0.9483
K00236	SDHC, SIK00236		3.4588	1.9454	1.5168
	g__Debaryomyces.s__Debaryomyces_hansenii		3.4588	1.9454	1.5168
K02127	ATPeF0B, K02127		2.9488	2.6808	1.3285
	g__Debaryomyces.s__Debaryomyces_hansenii		2.9488	2.6808	1.3285
K02150	ATPeV1E, K02150		3.0332	2.6324	1.2903
	g__Debaryomyces.s__Debaryomyces_hansenii		3.0332	2.6324	1.2903
K02135	ATPeF1E, K02135		1.1408	3.2318	2.3235
	g__Debaryomyces.s__Debaryomyces_hansenii		0.8774	3.2318	2.3235
	K02135unclassified		0.2634	0	0
K03936	NDUFS3 K03936		3.2094	2.2844	1.2512
	g__Debaryomyces.s__Debaryomyces_hansenii		3.2094	2.2844	0.8843
	K03936unclassified		0	0	0.3667
K03938	NDUFS5 K03938		3.021	2.475	1.2122
	g__Debaryomyces.s__Debaryomyces_hansenii		3.021	2.475	1.2122
K02134	ATPeF1D, K02134		2.1764	2.9792	1.4615

		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.0878	2.1112	0.6615
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0886	0	0
		K02134unclassified	0	0.868	0.8
K03887	MQCRB, K03887		1.1944	0.25	4.5057
		<i>g_Staphylococcus.s_Staphylococcus_lentus</i>	1.1944	0.25	4.009
		K03887unclassified	0	0	0.4967
K02147	ATPeV1BK02147		2.745	2.5118	1.3228
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.745	2.236	0.8182
		K02147unclassified	0	0.2758	0.5047
K03963	NDUFB7 K03963		4.186	2.163	0.2508
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	4.186	2.163	0.2508
K02266	COX6A K02266		3.7784	1.5586	1.0907
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.7784	1.5586	1.0907
K02137	ATPeF00 K02137		3.0164	2.326	0.972
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.0164	2.326	0.972
K02138	ATPeF0D K02138		3.0308	2.265	1.0072
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.0308	2.265	1.0072
K02140	ATPeFG, K02140		4.5146	1.2242	0.6285
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	4.5146	1.2242	0.6285
K02148	ATPeV1CK02148		3.006	2.4582	0.8215
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.9754	2.4582	0.8215
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0308	0	0
K02272	COX7C K02272		3.4112	1.6068	1.1728
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.4112	1.6068	1.1728
K02146	ATPeV0DK02146		3.2566	2.02	0.9553
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.2566	2.02	0.9553
K00415	QCR2, UCK00415		2.5896	2.321	1.2477
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.5896	2.321	1.2477
K03953	NDUFA9 K03953		2.7724	2.3814	1.023
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.7724	2.3814	1.023
K03943	NDUFV2 K03943		3.0012	2.1646	0.9875
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.0012	2.1646	0.9875
K03940	NDUFS7 K03940		2.7288	2.1022	1.209
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.6514	2.1022	0.9868
K02154	ATPeV0AK02154		2.9594	2.1198	0.9692
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.946	2.1198	0.9692
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0134	0	0
K03949	NDUFA5 K03949		3.3106	1.6442	1.0522
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.3106	1.6442	1.0522
K00414	QCRI, UCK00414		2.7292	2.0032	1.1857
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.7292	2.0032	1.1857
K03661	ATPeV0BK03661		3.1254	2.0244	0.8338
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	3.1254	2.0244	0.8338
K02145	ATPeV1AK02145		2.8368	1.83	1.2198
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.8368	1.83	1.2198
K00336	nuoG K00336		0.5272	1.7442	3.194
		<i>g_Escherichia.s_Escherichia_coli</i>	0.2192	0.2312	0
		K00336unclassified	0.308	1.513	3.194
K02258	COX11, cK02258		2.588	2.0286	1.202
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	2.588	2.0286	1.202
K02152	ATPeV1GK02152		1.591	3.0038	1.1972
		<i>g_Debaryomyces.s_Debaryomyces_hansenii</i>	1.591	3.0038	1.1972
K00245	frdB K00245		4.704	1.2588	0.0453
		<i>g_Escherichia.s_Escherichia_coli</i>	0.9732	0.7312	0.0453
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.5278	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.1014	0	0
		K00245unclassified	3.6296	0	0
K02151	ATPeV1F K02151		1.84	2.1896	1.616

		g__Debaryomyces.s__Debaryomyces_hansenii	1.84	2.1896	1.4198
		K02151unclassified	0	0	0.1962
K02136	ATPeF1G	K02136	2.7472	1.9456	1.0023
		g__Debaryomyces.s__Debaryomyces_hansenii	2.7472	1.9456	1.0023
K01549	TIM11, A	K01549	2.7822	2.114	0.825
		g__Debaryomyces.s__Debaryomyces_hansenii	2.7822	2.114	0.825
K02141	ATPeFH,	K02141	2.8446	1.8244	1.0022
		g__Debaryomyces.s__Debaryomyces_hansenii	2.8446	1.8244	1.0022
K03965	NDUFB9	K03965	2.5476	2.881	0.3008
		g__Debaryomyces.s__Debaryomyces_hansenii	2.5476	2.881	0.3008
K00341	nuoL	K00341	1.0742	2.1974	2.0527
		g__Alistipes.s__Alistipes_shahii	0	0.5184	0.325
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.2392	0
		K00341unclassified	1.0742	1.4396	1.7277
K02123	ATPVI, nt	K02123	0.0522	2.2782	2.7877
		g__Aerococcus.s__Aerococcus_viridans	0.0196	1.7618	2.3947
		g__Enterococcus.s__Enterococcus_faecalis	0.0326	0.0202	0.0145
		K02123unclassified	0	0.496	0.3785
K03950	NDUFA6	K03950	3.5824	1.7746	0.2605
		g__Debaryomyces.s__Debaryomyces_hansenii	3.5824	1.7746	0.2605
K02265	COX5B	K02265	2.529	1.9158	0.9755
		g__Debaryomyces.s__Debaryomyces_hansenii	2.529	1.9158	0.9755
K00235	SDHB, SI	K00235	2.9118	1.8726	0.684
		g__Debaryomyces.s__Debaryomyces_hansenii	2.9118	1.8726	0.684
K03964	NDUFB8	K03964	2.6328	2.0486	0.5122
		g__Debaryomyces.s__Debaryomyces_hansenii	2.6328	2.0486	0.5122
K00335	nuoF	K00335	1.7178	2.8276	0.5363
		g__Escherichia.s__Escherichia_coli	0.7294	0.6608	0.0223
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.3326	0
		g__Proteus.s__Proteus_mirabilis	0.0246	0	0
		K00335unclassified	0.964	1.8338	0.514
K02132	ATPeF1A	K02132	2.2898	1.9126	0.7657
		g__Debaryomyces.s__Debaryomyces_hansenii	2.241	1.9126	0.7657
		g__Meyerozyma.s__Meyerozyma_guilliermondii	0.0488	0	0
K02264	COX5A	K02264	1.6458	2.0052	1.0787
		g__Debaryomyces.s__Debaryomyces_hansenii	1.6458	1.0776	0.6758
		K02264unclassified	0	0.9276	0.4028
K00420	QCR10, UK	K00420	1.113	3.365	0.3022
		g__Debaryomyces.s__Debaryomyces_hansenii	1.113	3.365	0.3022
K03946	NDUFA2	K03946	2.6798	1.3036	0.4298
		g__Debaryomyces.s__Debaryomyces_hansenii	2.6798	1.3036	0.4298
K02144	ATPeV1HK	K02144	2.6604	0.885	0.6927
		g__Debaryomyces.s__Debaryomyces_hansenii	2.6604	0.885	0.6927
K03937	NDUFS4	K03937	1.6504	2.1192	0.4185
		g__Debaryomyces.s__Debaryomyces_hansenii	1.6504	2.1192	0.4185
K02260	COX17	K02260	1.9236	1.9558	0
		g__Debaryomyces.s__Debaryomyces_hansenii	1.9236	1.9558	0
K00416	QCR6, UC	K00416	1.4996	1.5906	0.6358
		g__Debaryomyces.s__Debaryomyces_hansenii	1.4996	1.5906	0.6358
K03952	NDUFA8	K03952	1.874	1.2778	0.5342
		g__Debaryomyces.s__Debaryomyces_hansenii	1.874	1.2778	0.5342
K02139	ATPeFF,	K02139	1.1326	1.014	1.2518
		g__Debaryomyces.s__Debaryomyces_hansenii	1.1326	1.014	1.2518
K00334	nuoE	K00334	1.2094	1.5754	0.519
		g__Escherichia.s__Escherichia_coli	1.0014	1.271	0.2497
		g__Proteus.s__Proteus_mirabilis	0.0752	0	0
		K00334unclassified	0.1328	0.3044	0.2695
K00246	frdC	K00246	1.2454	1.6354	0

		g_Escherichia.s_Escherichia_coli	0.3492	1.4942	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1414	0
		g_Proteus.s_Proteus_mirabilis	0.1208	0	0
		K00246unclassified	0.7754	0	0
K02119	ATPVC, n	K02119	0	0.964	1.5683
		g_Aerococcus.s_Aerococcus_viridans	0	0.964	1.5683
K02829	qoxD	K02829	1.7662	0	0.8255
		g_Staphylococcus.s_Staphylococcus_xylosus	1.7662	0	0.8255
K00412	CYTB, pe	K00412	2.1342	0	0.4847
		K00412unclassified	2.1342	0	0.4847
K00242	sdhD, frdI	K00242	1.3084	1.1898	0.1337
		g_Escherichia.s_Escherichia_coli	1.3084	1.0038	0.1337
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.186	0
K00405	ccoO	K00405	2.3912	0	0
		K00405unclassified	2.3912	0	0
K00404	ccoN	K00404	2.271	0	0
		K00404unclassified	2.271	0	0
K00247	frdD	K00247	0.7162	1.378	0.142
		g_Escherichia.s_Escherichia_coli	0.7162	1.378	0.142
K02826	qoxA	K02826	1.1674	0.568	0.4165
		g_Staphylococcus.s_Staphylococcus_xylosus	1.1674	0.568	0.4165
K00417	QCR7, U	K00417	0.5144	1.135	0.4285
		g_Deбaryomyces.s_Deбaryomyces_hansenii	0.5144	1.135	0.4285
K02827	qoxB	K02827	0.911	0.525	0.5208
		g_Staphylococcus.s_Staphylococcus_xylosus	0.6908	0.525	0.5208
		K02827unclassified	0.2202	0	0
K02133	ATPeF1B,	K02133	0.2684	0.9008	0.659
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0226	0	0
		K02133unclassified	0.2458	0.9008	0.659
K02277	coxD, ctaI	K02277	0	0	1.3977
		K02277unclassified	0	0	1.3977
K02299	cyoC	K02299	0.745	0.5732	0.2375
		g_Escherichia.s_Escherichia_coli	0.745	0.5732	0.2375
K01535	PMA1, PM	K01535	0.0304	0.3668	1.0104
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0304	0	0
		K01535unclassified	0	0.3668	1.0104
K02297	cyoA	K02297	0.6836	0.4656	0.1083
		g_Escherichia.s_Escherichia_coli	0.6836	0.3964	0.1083
		g_Proteus.s_Proteus_mirabilis	0	0.0692	0
K00333	nuoD	K00333	1.2676	0	0
		K00333unclassified	1.2676	0	0
K02828	qoxC	K02828	0.6148	0.1978	0.2545
		g_Staphylococcus.s_Staphylococcus_xylosus	0.6148	0.1978	0.2545
K02300	cyoD	K02300	0.3296	0.5788	0
		g_Escherichia.s_Escherichia_coli	0.3296	0	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5788	0
K02142	ATPeFJ, A	K02142	0.8892	0	0
		g_Deбaryomyces.s_Deбaryomyces_hansenii	0.8892	0	0
K00234	SDHA, SI	K00234	0	0	0.3695
		K00234unclassified	0	0	0.3695
K00407	ccoQ	K00407	0.3832	0	0
		K00407unclassified	0.3832	0	0
K02298	cyoB	K02298	0	0.1898	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1898	0
K00688	PYG, glgF	K00688	21.101	22.538	25.563
		g_Aerococcus.s_Aerococcus_viridans	0	0.7646	1.3062
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4118	0
		g_Lactococcus.s_Lactococcus_raffinolactis	0.0182	0	0.0127

		K00688unclassified	21.083	21.361	24.244
K00844	HK	K00844	14.981	16.244	12.087
		g__Bacteroides.s__Bacteroides_thetaiotaomicron	6.6494	9.8578	9.5063
		g__Debaryomyces.s__Debaryomyces_hansenii	8.331	6.3866	2.58
K07192	FLOT	K07192	9.2098	14.955	17.843
		g__Bacteroides.s__Bacteroides_thetaiotaomicron	6.9166	10.244	7.0313
		g__Corynebacterium.s__Corynebacterium_glutamicum	0.1414	1.6444	4.2043
		g__Enterococcus.s__Enterococcus_faecalis	0.0226	0	0.0403
		g__Lactococcus.s__Lactococcus_lactis	0.5742	0.6368	0.3183
		g__Lactococcus.s__Lactococcus_raffinolactis	0.0508	0.1014	0.081
		K07192unclassified	1.504	2.329	6.1667
K06269	PPP1C	K06269	8.7018	7.2668	4.8008
		g__Debaryomyces.s__Debaryomyces_hansenii	8.4762	6.0162	3.1775
		K06269unclassified	0.2256	1.2506	1.6233
K01596	E4.1.1.32, K01596	K01596	0.5712	2.2956	12.637
		g__Corynebacterium.s__Corynebacterium_glutamicum	0.19	1.2624	2.4665
		K01596unclassified	0.3812	1.0332	10.17
K04345	PKA	K04345	6.4232	5.4574	3.4862
		g__Debaryomyces.s__Debaryomyces_hansenii	6.05	4.4738	2.143
		g__Meyerozyma.s__Meyerozyma_guilliermondii	0.0938	0	0
		K04345unclassified	0.2792	0.9836	1.3432
K04371	ERK, MA	K04371	5.7072	3.925	2.1435
		g__Debaryomyces.s__Debaryomyces_hansenii	5.7072	3.925	2.1435
map04922_ Glucagon signaling pathway	K06276	PDPK1 K06276	5.1586	3.8524	1.6093
		g__Debaryomyces.s__Debaryomyces_hansenii	5.145	3.8524	1.6093
		g__Meyerozyma.s__Meyerozyma_guilliermondii	0.0134	0	0
	K03841	FBP, fbp K03841	3.2946	3.3838	1.962
		g__Debaryomyces.s__Debaryomyces_hansenii	2.6468	1.9308	1.3525
		g__Escherichia.s__Escherichia_coli	0.613	0.5756	0
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.8018	0
		g__Proteus.s__Proteus_mirabilis	0.0348	0.0752	0
		K03841unclassified	0	0	0.6095
K02183	CALM	K02183	2.2116	3.8078	1.8227
		g__Debaryomyces.s__Debaryomyces_hansenii	2.2116	2.551	0.6237
		K02183unclassified	0	1.2572	1.199
K03259	EIF4E	K03259	3.3878	3.1194	1.13
		g__Debaryomyces.s__Debaryomyces_hansenii	3.3878	3.1194	1.13
K04739	PRKAR	K04739	4.0038	2.269	0.8053
		g__Debaryomyces.s__Debaryomyces_hansenii	4.0038	2.269	0.8053
K02991	RP-S6e, RK	K02991	3.0984	2.3084	1.5042
		g__Debaryomyces.s__Debaryomyces_hansenii	3.0984	2.3084	1.5042
K07200	PRKAG	K07200	3.256	2.4872	1.026
		g__Debaryomyces.s__Debaryomyces_hansenii	3.256	2.4872	1.026
K03083	GSK3B	K03083	2.8502	2.1628	1.1662
		g__Debaryomyces.s__Debaryomyces_hansenii	2.8502	2.1628	1.1662
K07204	RAPTOR	K07204	2.873	2.0864	0.9738
		g__Debaryomyces.s__Debaryomyces_hansenii	2.873	2.0864	0.9738
K07208	RHEB	K07208	2.8516	1.9996	0.7788
		g__Debaryomyces.s__Debaryomyces_hansenii	2.8516	1.9996	0.7788
K07827	KRAS, KIK	K07827	2.4928	1.6862	1.1705
		g__Debaryomyces.s__Debaryomyces_hansenii	2.4928	1.6862	1.1705
K03099	SOS	K03099	2.6738	1.733	0.8135
		g__Debaryomyces.s__Debaryomyces_hansenii	2.6738	1.733	0.8135
K00693	GYS	K00693	0	0	0.5423
		K00693unclassified	0	0	0.5423
K00688	PYG, glgF	K00688	21.101	22.538	25.563
		g__Aerococcus.s__Aerococcus_viridans	0	0.7646	1.3062
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.4118	0

		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0.0182	0	0.0127
		K00688unclassified	21.083	21.361	24.244
K00844	HK	K00844	14.981	16.244	12.087
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.6494	9.8578	9.5063
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	8.331	6.3866	2.58
K07192	FLOT	K07192	9.2098	14.955	17.843
		<i>g_Bacteroides.s_Bacteroides_thetaiotaomicron</i>	6.9166	10.244	7.0313
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.1414	1.6444	4.2043
		<i>g_Enterococcus.s_Enterococcus_faecalis</i>	0.0226	0	0.0403
		<i>g_Lactococcus.s_Lactococcus_lactis</i>	0.5742	0.6368	0.3183
		<i>g_Lactococcus.s_Lactococcus_raffinolactis</i>	0.0508	0.1014	0.081
		K07192unclassified	1.504	2.329	6.1667
K06269	PPP1C	K06269	8.7018	7.2668	4.8008
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	8.4762	6.0162	3.1775
		K06269unclassified	0.2256	1.2506	1.6233
K01596	E4.1.1.32, K01596		0.5712	2.2956	12.637
		<i>g_Corynebacterium.s_Corynebacterium_glutamicum</i>	0.19	1.2624	2.4665
		K01596unclassified	0.3812	1.0332	10.17
K04345	PKA	K04345	6.4232	5.4574	3.4862
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	6.05	4.4738	2.143
		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0938	0	0
		K04345unclassified	0.2792	0.9836	1.3432
K04371	ERK, MA	K04371	5.7072	3.925	2.1435
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	5.7072	3.925	2.1435
map04910_I	K06276	PDPK1 K06276	5.1586	3.8524	1.6093
nsulin		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	5.145	3.8524	1.6093
signaling		<i>g_Meyerozyma.s_Meyerozyma_guilliermondii</i>	0.0134	0	0
pathway	K03841	FBP, fbp K03841	3.2946	3.3838	1.962
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.6468	1.9308	1.3525
		<i>g_Escherichia.s_Escherichia_coli</i>	0.613	0.5756	0
		<i>g_Klebsiella.s_Klebsiella_pneumoniae</i>	0	0.8018	0
		<i>g_Proteus.s_Proteus_mirabilis</i>	0.0348	0.0752	0
		K03841unclassified	0	0	0.6095
K02183	CALM	K02183	2.2116	3.8078	1.8227
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.2116	2.551	0.6237
		K02183unclassified	0	1.2572	1.199
K03259	EIF4E	K03259	3.3878	3.1194	1.13
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	3.3878	3.1194	1.13
K04739	PRKAR	K04739	4.0038	2.269	0.8053
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	4.0038	2.269	0.8053
K02991	RP-S6e, RK	K02991	3.0984	2.3084	1.5042
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	3.0984	2.3084	1.5042
K07200	PRKAG	K07200	3.256	2.4872	1.026
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	3.256	2.4872	1.026
K03083	GSK3B	K03083	2.8502	2.1628	1.1662
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.8502	2.1628	1.1662
K07204	RAPTOR	K07204	2.873	2.0864	0.9738
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.873	2.0864	0.9738
K07208	RHEB	K07208	2.8516	1.9996	0.7788
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.8516	1.9996	0.7788
K07827	KRAS, KIK	K07827	2.4928	1.6862	1.1705
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.4928	1.6862	1.1705
K03099	SOS	K03099	2.6738	1.733	0.8135
		<i>g_Deбaryomyces.s_Deбaryomyces_hansenii</i>	2.6738	1.733	0.8135
K00693	GYS	K00693	0	0	0.5423
		K00693unclassified	0	0	0.5423
K01897	ACSL, fac	K01897	41.184	55.502	94.957
		<i>g_Alistipes.s_Alistipes_shahii</i>	0	0.8852	0.6623

	g_Bacteroides.s_Bacteroides_thetaiotaomicron	19.587	26.222	28.11
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.0228	1.6776	2.0238
	g_Debaryomyces.s_Debaryomyces_hansenii	11.282	7.5546	3.7972
	g_Escherichia.s_Escherichia_coli	0.5094	0.2604	0.0212
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4154	0
	g_Lactococcus.s_Lactococcus_lactis	0.1604	0.1944	0.249
	g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0178	0	0
	g_Proteus.s_Proteus_mirabilis	0.0564	0.018	0
	K01897unclassified	9.5478	18.274	60.094
K00059	fabG, OAIK00059	53.76	42.074	65.823
	g_Aerococcus.s_Aerococcus_viridans	0	0.7746	0.7287
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	9.6322	16.386	20.855
	g_Bacteroides.s_Bacteroides_uniformis	0	6.7334	0
	g_Debaryomyces.s_Debaryomyces_hansenii	2.3206	2.491	0.811
	g_Enterococcus.s_Enterococcus_faecalis	0.0484	0.1028	0.0432
	g_Escherichia.s_Escherichia_coli	0.1926	0.2164	0.0453
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1736	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.1128	0.5182	0.0975
	g_Lactobacillus.s_Lactobacillus_helveticus	0.1042	0	0.1898
	g_Lactobacillus.s_Lactobacillus_johnsonii	24.646	3.9284	14.675
	g_Lactobacillus.s_Lactobacillus_reuteri	4.2742	0.7262	2.689
	g_Lactococcus.s_Lactococcus_lactis	1.5286	1.7292	1.834
	g_Lactococcus.s_Lactococcus_raffinolactis	0	0	0.1427
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0	0	0.0573
	g_Meyerozyma.s_Meyerozyma_guilliermondii	0.054	0	0
	g_Proteus.s_Proteus_mirabilis	0.051	0.1524	0
	K00059unclassified	10.795	8.1412	23.655
K01961	accC	30.76	38.892	40.803
	g_Aerococcus.s_Aerococcus_viridans	0	1.1372	0.69
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.45	9.3336	9.442
	g_Enterorhabdus.s_Enterorhabdus_caecimuris	2.4898	7.5372	5.5873
	g_Escherichia.s_Escherichia_coli	0.924	0.6108	0.0663
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.8394	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3604	0.4654	0.1655
	g_Lactobacillus.s_Lactobacillus_helveticus	0.0854	0.1266	0.0712
	g_Lactobacillus.s_Lactobacillus_reuteri	5.7874	0.798	3.5358
	g_Lactococcus.s_Lactococcus_lactis	0.7044	1.0254	0.4613
	g_Leuconostoc.s_Leuconostoc_lactis	0	0	0.0433
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.025	0	0.0298
	g_Proteus.s_Proteus_mirabilis	0	0.0744	0
	g_Staphylococcus.s_Staphylococcus_xylosus	0.7374	0.5824	0.2248
	g_Streptococcus.s_Streptococcus_thermophilus	0.4502	0.4794	0.5307
	K01961unclassified	11.745	15.882	19.955
K00648	fabH	30.227	32.625	44.415
	g_Alistipes.s_Alistipes_finegoldii	0	0.0794	0.034
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	16.157	22.97	26.917
	g_Enterococcus.s_Enterococcus_faecalis	0	0.0428	0.065
	g_Escherichia.s_Escherichia_coli	0.6972	0.4466	0.066
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4466	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2486	0.2842	0.0637
	g_Lactobacillus.s_Lactobacillus_helveticus	0.163	0.1734	0.0955
	g_Lactobacillus.s_Lactobacillus_reuteri	5.4512	0.6728	3.1962
	g_Lactococcus.s_Lactococcus_lactis	0.5374	0.6046	0.8493
	g_Lactococcus.s_Lactococcus_raffinolactis	0	0.042	0.2167
	g_Parabacteroides.s_Parabacteroides_goldsteinii	3.2264	2.221	6.3732
	g_Staphylococcus.s_Staphylococcus_xylosus	0.9678	0.4662	0.6875
	g_Streptococcus.s_Streptococcus_thermophilus	0.2668	0.6366	0.6293
	K00648unclassified	2.5112	3.5388	5.2212

K02371	fabK	K02371	18.044	25.422	33.95
		g__Aerococcus.s__Aerococcus_viridans	0	0.8086	0.9987
		g__Bacteroides.s__Bacteroides_thetaiotaomicron	6.21	8.1408	8.673
		g__Enterococcus.s__Enterococcus_faecalis	0.0738	0.0344	0.0328
		g__Enterorhabdus.s__Enterorhabdus_caecimuris	3.2188	9.6904	8.4747
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.1252	0
		g__Lactococcus.s__Lactococcus_lactis	0.0428	0.0428	0.041
		g__Lactococcus.s__Lactococcus_raffinolactis	0	0.0432	0
		g__Leuconostoc.s__Leuconostoc_lactis	0	0.0364	0
		g__Leuconostoc.s__Leuconostoc_mesenteroides	0.301	0.1654	0.107
		K02371unclassified	8.1978	6.3348	15.623
K09458	fabF, OXSK09458		24.272	25.437	20.894
		g__Aerococcus.s__Aerococcus_viridans	0	0.9698	0.9377
		g__Alistipes.s__Alistipes_shahii	0	0.4338	0.0545
		g__Debaryomyces.s__Debaryomyces_hansenii	2.5094	2.3668	0.9313
		g__Enterorhabdus.s__Enterorhabdus_caecimuris	2.9646	9.4876	7.7925
		g__Lactobacillus.s__Lactobacillus_delbrueckii	0.2338	0.4464	0.0538
		g__Lactobacillus.s__Lactobacillus_reuteri	4.6942	0.853	2.9563
		g__Lactococcus.s__Lactococcus_lactis	0.9188	0.9076	0.4678
		g__Leuconostoc.s__Leuconostoc_lactis	0.0268	0	0.0273
		g__Proteus.s__Proteus_mirabilis	0	0.0272	0
		g__Streptococcus.s__Streptococcus_thermophilus	0.351	0.3056	0.6422
		K09458unclassified	12.574	9.6384	7.0303
K02372	fabZ	K02372	23.029	16.027	27.062
		g__Enterococcus.s__Enterococcus_faecalis	0	0.1248	0
		g__Escherichia.s__Escherichia_coli	1.6888	0.9184	0
		g__Klebsiella.s__Klebsiella_pneumoniae	0	4.562	0
		g__Lactobacillus.s__Lactobacillus_delbrueckii	0.3116	0.4326	0.1015
		g__Lactobacillus.s__Lactobacillus_helveticus	0.9196	0.1242	0
		g__Lactobacillus.s__Lactobacillus_reuteri	12.456	2.146	5.5973
		g__Lactococcus.s__Lactococcus_lactis	0.7406	1.6506	2.2478
map00061_		g__Leuconostoc.s__Leuconostoc_lactis	0	0.1	0
Fatty acid		g__Leuconostoc.s__Leuconostoc_mesenteroides	0	0	0.0702
biosynthesis		g__Staphylococcus.s__Staphylococcus_xylosum	0.6218	0.423	0
		K02372unclassified	6.2896	5.5452	19.046
K00645	fabD, MC.K00645		14.374	24.788	21.126
		g__Aerococcus.s__Aerococcus_viridans	0.0454	0.7266	0.4147
		g__Alistipes.s__Alistipes_shahii	0	0.6152	0.3177
		g__Bacteroides.s__Bacteroides_thetaiotaomicron	5.7642	9.1626	10.577
		g__Bacteroides.s__Bacteroides_uniformis	0	5.4076	0
		g__Debaryomyces.s__Debaryomyces_hansenii	2.5096	1.4358	1.0803
		g__Enterococcus.s__Enterococcus_faecalis	0	0.0922	0.034
		g__Escherichia.s__Escherichia_coli	0.4988	0.2784	0
		g__Lactobacillus.s__Lactobacillus_delbrueckii	0.2688	0.5456	0.0668
		g__Lactococcus.s__Lactococcus_lactis	0.2446	0.3358	0.5448
		g__Proteus.s__Proteus_mirabilis	0.038	0.0446	0
		g__Streptococcus.s__Streptococcus_thermophilus	0.8452	0.719	0.6532
		K00645unclassified	4.1596	5.424	7.438
K01071	MCH	K01071	31.621	6.3986	21.038
		g__Alistipes.s__Alistipes_shahii	0	0.6502	0.3267
		g__Enterococcus.s__Enterococcus_faecalis	0.051	0.1262	0
		g__Lactobacillus.s__Lactobacillus_delbrueckii	0.2508	0.2906	0.0507
		g__Lactobacillus.s__Lactobacillus_johnsonii	22.36	3.7032	14.724
		g__Lactobacillus.s__Lactobacillus_reuteri	8.3324	1.2048	5.236
		g__Lactococcus.s__Lactococcus_lactis	0.5784	0.4234	0.6112
		g__Lactococcus.s__Lactococcus_raffinolactis	0.0488	0	0.0893
K16363	lpxC-fabZ K16363		11.064	18.495	17.173
		g__Bacteroides.s__Bacteroides_thetaiotaomicron	9.408	10.526	13.822

		g_Bacteroides.s_Bacteroides_uniformis	0	5.372	0
		K16363unclassified	1.656	2.5972	3.3517
K01963	accD	K01963	18.376	14.13	11.767
		g_Aerococcus.s_Aerococcus_viridans	0	0.856	0.5132
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0544	1.4522	2.1853
		g_Enterococcus.s_Enterococcus_faecalis	0.0832	0.0486	0.1112
		g_Escherichia.s_Escherichia_coli	0.6276	0.7632	0.0347
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1344	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.2654	0.3056	0.038
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0512	0.5064	0.0438
		g_Lactobacillus.s_Lactobacillus_reuteri	4.0608	1.0862	3.0622
		g_Lactococcus.s_Lactococcus_lactis	0.6636	0.5402	0.8495
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0.043	0
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0412	0.1848	0.204
		g_Staphylococcus.s_Staphylococcus_xylosum	0.956	0.2976	0.3282
		g_Streptococcus.s_Streptococcus_thermophilus	0.5716	0.389	0.4928
		K01963unclassified	11.001	7.5222	3.9045
K11533	fas	K11533	0.331	2.1632	18.646
		K11533unclassified	0.331	2.1632	18.646
K00208	fabI	K00208	7.6328	3.2492	6.3007
		g_Escherichia.s_Escherichia_coli	0.4748	0.276	0.145
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.142	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.0622	0.256	0.0952
		g_Lactobacillus.s_Lactobacillus_helveticus	0.118	0.1144	0.0492
		g_Lactobacillus.s_Lactobacillus_reuteri	4.9946	0.6506	3.9432
		g_Lactococcus.s_Lactococcus_lactis	0.573	1.092	0.6107
		g_Staphylococcus.s_Staphylococcus_xylosum	0.2676	0.3098	0.0998
		K00208unclassified	1.143	0.4086	1.3582
K11263	bccA, pcc.	K11263	0	1.6778	12.671
		K11263unclassified	0	1.6778	12.671
K02160	accB, bccI	K02160	7.0372	1.871	4.847
		g_Escherichia.s_Escherichia_coli	0.7362	0.4022	0.0825
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3104	0	0
		g_Lactobacillus.s_Lactobacillus_reuteri	4.3404	0.4174	3.1802
		g_Lactococcus.s_Lactococcus_lactis	0.7604	0.7734	0.8972
		g_Proteus.s_Proteus_mirabilis	0.1852	0	0
		g_Streptococcus.s_Streptococcus_thermophilus	0.7046	0.278	0.687
K07512	MECR, N	K07512	6.536	3.8378	1.9335
		g_Debaryomyces.s_Debaryomyces_hansenii	6.536	3.8378	1.9335
K01962	accA	K01962	4.0258	4.6616	2.4557
		g_Aerococcus.s_Aerococcus_viridans	0	0.971	0.5823
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1524	0.0415
		g_Escherichia.s_Escherichia_coli	0.6068	0.6828	0
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.5892	0
		g_Lactobacillus.s_Lactobacillus_helveticus	0.107	0.206	0
		g_Lactococcus.s_Lactococcus_lactis	0.4616	1.0996	0.3595
		g_Leuconostoc.s_Leuconostoc_lactis	0	0.062	0.2335
		g_Proteus.s_Proteus_mirabilis	0.1076	0.0862	0
		g_Staphylococcus.s_Staphylococcus_xylosum	0.839	0.2724	0.4453
		g_Streptococcus.s_Streptococcus_thermophilus	0.5074	0.5402	0.5253
		K01962unclassified	1.3968	0	0.2682
K22541	HTD2	K22541	2.8658	2.0174	0.7382
		g_Debaryomyces.s_Debaryomyces_hansenii	2.8658	2.0174	0.7382
K00209	fabV, ter	K00209	0.0338	0.6918	1.1118
		g_Aerococcus.s_Aerococcus_viridans	0.0338	0.388	0.465
		K00209unclassified	0	0.304	0.6468
K18474	fabM	K18474	0.5624	0.3566	0.676
		g_Streptococcus.s_Streptococcus_thermophilus	0.5624	0.3566	0.676

K01716	fabA	K01716	0.8044	0.6166	0
		g_Escherichia.s_Escherichia_coli	0.8044	0.5416	0
		g_Proteus.s_Proteus_mirabilis	0	0.075	0
K00647	fabB	K00647	0.497	0.8246	0.0497
		g_Escherichia.s_Escherichia_coli	0.4408	0.4544	0.0497
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.3422	0
K00668	FAS1	K00668	0.005	0	0
		g_Meyerozyma.s_Meyerozyma_guilliermondii	0.005	0	0
K00133	asd	K00133	59.22	71.241	67.241
		g_Aerococcus.s_Aerococcus_viridans	0.0794	1.2022	1.1883
		g_Blautia.s_Ruminococcus_torques	0	0	0.026
		g_Clostridium.s_Clostridium_sp_ASF502	4.6042	9.64	1.215
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0868	1.2556	3.1185
		g_Debaryomyces.s_Debaryomyces_hansenii	2.955	2.1904	0.9883
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	0.3462	1.1906	1.5002
		g_Escherichia.s_Escherichia_coli	0.925	1.0426	0.0323
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.7238	0
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.4676	0.3564	0.1268
		g_Lactobacillus.s_Lactobacillus_helveticus	0.0948	0.1862	0.1292
		g_Lactobacillus.s_Lactobacillus_johnsonii	0.4482	0	0
		g_Lactobacillus.s_Lactobacillus_reuteri	6.1628	0.9264	3.9473
		g_Lactococcus.s_Lactococcus_lactis	0.6084	0.804	0.5567
		g_Lactococcus.s_Lactococcus_raffinolactis	0.1014	0.0338	0.1523
		g_Proteus.s_Proteus_mirabilis	0.119	0.1044	0
		g_Staphylococcus.s_Staphylococcus_xylosus	0.5596	0.2146	0.4802
		g_Streptococcus.s_Streptococcus_thermophilus	0.4136	0.5112	0.1903
		K00133unclassified	41.248	50.859	53.59
		K01586	lysA	K01586	38.817
g_Alistipes.s_Alistipes_shahii	0			0.7548	0.1157
g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.4522			7.8252	9.2933
g_Corynebacterium.s_Corynebacterium_glutamicum	0.2684			2.9126	3.7507
g_Enterorhabdus.s_Enterorhabdus_caecimuris	2.9884			12.313	9.8052
g_Escherichia.s_Escherichia_coli	0.3738			0.5458	0
g_Klebsiella.s_Klebsiella_pneumoniae	0			0.1328	0
g_Lactobacillus.s_Lactobacillus_helveticus	0.096			0.1678	0.1272
g_Lactobacillus.s_Lactobacillus_johnsonii	0.6244			0	0.0615
g_Lactobacillus.s_Lactobacillus_reuteri	6.708			1.1092	4.5418
g_Lactococcus.s_Lactococcus_lactis	0.3566			0.526	0.5082
g_Streptococcus.s_Streptococcus_thermophilus	0.0294			0.0386	0
K01586unclassified	20.919			23.278	29.784
K00928	lysC	K00928	41.412	46.799	56.455
		g_Aerococcus.s_Aerococcus_viridans	0.0294	0.597	0.5892
		g_Bacteroides.s_Bacteroides_thetaiotaomicron	14.228	18.63	22.551
		g_Bacteroides.s_Bacteroides_uniformis	0	2.3614	0
		g_Bifidobacterium.s_Bifidobacterium_pseudolongum	0.174	0.2262	1.0278
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.2332	1.7858	2.5518
		g_Debaryomyces.s_Debaryomyces_hansenii	3.2358	1.9832	0.9733
		g_Enterococcus.s_Enterococcus_faecalis	0	0.1212	0.0883
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	0.306	1.3368	0.8467

	g_Escherichia.s_Escherichia_coli	0.7822	0.568	0.07
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.4568	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.7094	0.7356	0.2455
	g_Lactobacillus.s_Lactobacillus_johnsonii	0.3528	0	0
	g_Lactobacillus.s_Lactobacillus_reuteri	6.7854	1.4384	3.7615
	g_Lactococcus.s_Lactococcus_lactis	0.7028	0.5982	0.6952
	g_Lactococcus.s_Lactococcus_raffinolactis	0.0318	0.1104	0.0497
	g_Meyerozyma.s_Meyerozyma_guilliermondii	0.0208	0	0
	g_Proteus.s_Proteus_mirabilis	0	0.0572	0
	g_Staphylococcus.s_Staphylococcus_xylosum	0.5762	0.7504	0.2463
	g_Streptococcus.s_Streptococcus_thermophilus	0.6824	0.3104	0.3972
	K00928unclassified	12.563	14.732	22.361
K01714 dapA	K01714	28.066	36.54	51.915
	g_Aerococcus.s_Aerococcus_viridans	0	0.6764	0.5543
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	11.634	18.18	19.126
	g_Bacteroides.s_Bacteroides_uniformis	0	3.971	0
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.4182	2.5316	4.281
	g_Enterococcus.s_Enterococcus_faecalis	0.0824	0	0.0735
	g_Escherichia.s_Escherichia_coli	0.2486	0.1224	0
	g_Klebsiella.s_Klebsiella_pneumoniae	0	0.1322	0
	g_Lactobacillus.s_Lactobacillus_delbrueckii	0.082	0.357	0.115
	g_Lactobacillus.s_Lactobacillus_helveticus	0	0.0378	0.0387
	g_Lactobacillus.s_Lactobacillus_johnsonii	0.2966	0	0.045
	g_Lactobacillus.s_Lactobacillus_reuteri	5.9464	1.415	3.5287
	g_Lactococcus.s_Lactococcus_lactis	0.4072	0.7288	0.6983
	g_Lactococcus.s_Lactococcus_raffinolactis	0	0.0428	0
	g_Leuconostoc.s_Leuconostoc_mesenteroides	0.0832	0.08	0.157
	g_Parabacteroides.s_Parabacteroides_goldsteinii	2.364	1.7384	4.5512
	g_Proteus.s_Proteus_mirabilis	0	0.0396	0
	g_Streptococcus.s_Streptococcus_thermophilus	0.4978	0.3222	0.444
	K01714unclassified	6.0052	6.1644	18.301
	K01715	35.974	28.023	18.895
	K01715unclassified	35.974	28.023	18.895
K01929 murF	K01929	41.55	20.062	42.17
	g_Aerococcus.s_Aerococcus_viridans	0	0.7658	0.5152
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.5194	9.4642	10.324
	g_Enterococcus.s_Enterococcus_faecalis	0.0244	0.0528	0
	g_Escherichia.s_Escherichia_coli	0.6206	0.5564	0
	g_Lactobacillus.s_Lactobacillus_helveticus	0.0776	0.186	0.0218
	g_Lactobacillus.s_Lactobacillus_johnsonii	25.333	4.6164	17.951
	g_Lactobacillus.s_Lactobacillus_reuteri	8.4094	1.4412	4.3795
	g_Lactococcus.s_Lactococcus_lactis	0.4234	1.01	0.619
	g_Proteus.s_Proteus_mirabilis	0.0242	0.045	0
	K01929unclassified	0.118	1.924	8.361
K03340 dapdh	K03340	18.123	34.288	32.028
	g_Bacteroides.s_Bacteroides_thetaiotaomicron	7.011	9.3464	9.7945
	g_Bacteroides.s_Bacteroides_uniformis	0	5.0378	0
	g_Corynebacterium.s_Corynebacterium_glutamicum	0.0406	1.7654	1.941
	g_Enterorhabdus.s_Enterorhabdus_caecimuris	2.04	8.4354	6.884
	K03340unclassified	9.0316	9.7022	13.409

map00300_ Lysine biosynthesis	K00215	dapB	K00215	21.447	22.595	29.839	
			<i>g__Aerococcus.s__Aerococcus_viridans</i>	0.0556	0.924	0.7383	
			<i>g__Alistipes.s__Alistipes_shahii</i>	0	0.233	0.1843	
			<i>g__Bacteroides.s__Bacteroides_thetaiotaomicron</i>	8.2774	9.3716	10.894	
			<i>g__Corynebacterium.s__Corynebacterium_glutamicum</i>	0.0594	1.9278	1.8672	
			<i>g__Enterococcus.s__Enterococcus_faecalis</i>	0.0946	0	0	
			<i>g__Lactobacillus.s__Lactobacillus_delbrueckii</i>	0.1012	0.2544	0.2142	
			<i>g__Lactobacillus.s__Lactobacillus_helveticus</i>	0.117	0.0554	0	
			<i>g__Lactobacillus.s__Lactobacillus_johnsonii</i>	0.3856	0	0	
			<i>g__Lactobacillus.s__Lactobacillus_reuteri</i>	7.5234	1.367	3.7917	
			<i>g__Lactococcus.s__Lactococcus_lactis</i>	0.628	0.6092	1.0712	
			<i>g__Lactococcus.s__Lactococcus_raffinolactis</i>	0	0	0.0927	
			<i>g__Leuconostoc.s__Leuconostoc_mesenteroides</i>	0.0492	0.2258	0.1532	
			<i>g__Staphylococcus.s__Staphylococcus_xylosum</i>	0.3292	0.3436	0.4272	
			<i>g__Streptococcus.s__Streptococcus_thermophilus</i>	0.4202	0.6022	0.6665	
			K00215unclassified	3.4068	6.6806	9.7398	
		K00003	hom	K00003	16.165	27.891	27.784
				<i>g__Aerococcus.s__Aerococcus_viridans</i>	0	0.7002	0.8585
				<i>g__Alistipes.s__Alistipes_finegoldii</i>	0	0	0.027
				<i>g__Alistipes.s__Alistipes_shahii</i>	0	0.432	0.1365
			<i>g__Corynebacterium.s__Corynebacterium_glutamicum</i>	0.1218	1.1428	1.9478	
			<i>g__Debaryomyces.s__Debaryomyces_hansenii</i>	2.3396	2.6582	1.2353	
			<i>g__Enterorhabdus.s__Enterorhabdus_caecimuris</i>	2.447	13	9.6028	
			<i>g__Lactobacillus.s__Lactobacillus_helveticus</i>	0	0.0506	0	
			<i>g__Lactobacillus.s__Lactobacillus_reuteri</i>	0	0	0.5792	
			<i>g__Lactococcus.s__Lactococcus_lactis</i>	0.4134	0.8032	0.5787	
			<i>g__Lactococcus.s__Lactococcus_raffinolactis</i>	0.0498	0	0.0268	
			<i>g__Staphylococcus.s__Staphylococcus_xylosum</i>	0.6448	0.2758	0.2325	
			K00003unclassified	10.149	8.8284	12.558	
	K10206	E2.6.1.83	K10206	21.687	27.558	19.168	
			<i>g__Alistipes.s__Alistipes_shahii</i>	0	0.6296	0.1665	
			<i>g__Bacteroides.s__Bacteroides_uniformis</i>	0	4.606	0	
			K10206unclassified	21.687	22.322	19.001	
	K00821	argD	K00821	13.514	20.002	26.123	
			<i>g__Alistipes.s__Alistipes_shahii</i>	0	0.7368	0.1152	
			<i>g__Bacteroides.s__Bacteroides_thetaiotaomicron</i>	7.0554	9.112	10.156	
			<i>g__Corynebacterium.s__Corynebacterium_glutamicum</i>	0.1896	1.333	2.5198	
			<i>g__Escherichia.s__Escherichia_coli</i>	0.3604	0.3116	0.1343	
			<i>g__Klebsiella.s__Klebsiella_pneumoniae</i>	0	0.4712	0	
			<i>g__Lactococcus.s__Lactococcus_lactis</i>	0.9546	0.2458	0.6285	
			<i>g__Proteus.s__Proteus_mirabilis</i>	0.028	0	0	
			K00821unclassified	4.9258	7.7924	12.569	
	K00841	patA	K00841	30.026	7.79	18.909	
			<i>g__Aerococcus.s__Aerococcus_viridans</i>	0.071	0.6902	0.9357	
			<i>g__Lactobacillus.s__Lactobacillus_delbrueckii</i>	0.6366	1.104	0.1558	
			<i>g__Lactobacillus.s__Lactobacillus_helveticus</i>	0.1288	0.0624	0.0868	
			<i>g__Lactobacillus.s__Lactobacillus_johnsonii</i>	0.2646	0	0	
			<i>g__Lactobacillus.s__Lactobacillus_reuteri</i>	28.004	5.3626	16.862	
			<i>g__Lactococcus.s__Lactococcus_lactis</i>	0.8934	0.538	0.6658	

K01439	dapE	g_Lactococcus.s_Lactococcus_raffinolactis	0.0274	0.0328	0.2027		
		K01439	19.207	12.939	21.406		
		g_Aerococcus.s_Aerococcus_viridans	0	1.6144	1.0062		
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.043	1.5468	1.8247		
		g_Enterorhabdus.s_Enterorhabdus_caecimuris	0.899	2.1234	1.8375		
		g_Escherichia.s_Escherichia_coli	0.3524	0.415	0		
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2056	0		
		g_Lactobacillus.s_Lactobacillus_reuteri	17.006	2.6576	9.3262		
		K01439unclassified	0.9064	4.3764	7.4115		
		K01778	dapF	K01778	16.904	14.453	18.441
g_Bacteroides.s_Bacteroides_thetaiotaomicron	6.8442			8.4572	10.909		
g_Corynebacterium.s_Corynebacterium_glutamicum	0.0524			1.0364	2.042		
g_Enterococcus.s_Enterococcus_faecalis	0.0358			0.1284	0		
g_Escherichia.s_Escherichia_coli	0.8902			0.6686	0.0393		
g_Klebsiella.s_Klebsiella_pneumoniae	0			0.5576	0		
g_Lactobacillus.s_Lactobacillus_delbrueckii	0.3412			0.2964	0.068		
g_Lactobacillus.s_Lactobacillus_helveticus	0			0.1184	0.062		
g_Lactobacillus.s_Lactobacillus_johnsonii	0.4992			0	0		
g_Lactobacillus.s_Lactobacillus_reuteri	6.8962			1.1728	3.4842		
K01928	murE	g_Proteus.s_Proteus_mirabilis	0.0442	0.041	0		
		K01778unclassified	1.3008	1.976	1.8373		
		K01928	19.163	9.9964	17.375		
		g_Aerococcus.s_Aerococcus_viridans	0.0266	1.3134	1.108		
		g_Alistipes.s_Alistipes_shahii	0	0.6826	0.1543		
		g_Corynebacterium.s_Corynebacterium_glutamicum	0.0502	1.5312	2.3713		
		g_Escherichia.s_Escherichia_coli	0.6924	0.6042	0.1268		
		g_Klebsiella.s_Klebsiella_pneumoniae	0	0.2932	0		
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.5772	0.2724	0.1378		
		g_Lactobacillus.s_Lactobacillus_helveticus	0.273	0.4306	0.1082		
K00290	LYS1	g_Lactobacillus.s_Lactobacillus_reuteri	14.996	2.3492	9.1427		
		g_Lactococcus.s_Lactococcus_lactis	1.2474	0.8466	0.9558		
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0.0874	0.2435		
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1364	0.0726	0.176		
		K01928unclassified	1.1648	1.5126	2.849		
		K00290	16.222	13.74	13.792		
		g_Debaryomyces.s_Debaryomyces_hansenii	2.412	2.017	0.9733		
		K00290unclassified	13.81	11.723	12.819		
		K00674	dapD	K00674	11.24	8.2086	14.229
				g_Alistipes.s_Alistipes_shahii	0	0.4162	0.0833
g_Corynebacterium.s_Corynebacterium_glutamicum	0.1432			2.8768	3.2083		
g_Escherichia.s_Escherichia_coli	0.8098			0.5548	0		
g_Klebsiella.s_Klebsiella_pneumoniae	0			0.4468	0		
g_Lactobacillus.s_Lactobacillus_reuteri	6.6706			1.2922	3.5395		
g_Lactococcus.s_Lactococcus_lactis	0.9978			0.8358	0.5453		
g_Leuconostoc.s_Leuconostoc_mesenteroides	0.1618			0	0.1992		
g_Proteus.s_Proteus_mirabilis	0			0.044	0		
g_Streptococcus.s_Streptococcus_thermophilus	0.374			0.4174	0.5787		
K05823	dapL	K00674unclassified	2.0828	1.3242	6.0753		
		K05823	7.4398	3.0246	4.5768		
		g_Enterococcus.s_Enterococcus_faecalis	0	0	0.0272		
		g_Lactobacillus.s_Lactobacillus_delbrueckii	0.4076	0.453	0.0292		
		g_Lactobacillus.s_Lactobacillus_helveticus	0	0.0662	0		
		g_Lactobacillus.s_Lactobacillus_johnsonii	0.4052	0	0		
		g_Lactobacillus.s_Lactobacillus_reuteri	5.5078	1.133	2.9673		
		g_Lactococcus.s_Lactococcus_lactis	0.5432	0.5028	0.8113		
		g_Lactococcus.s_Lactococcus_raffinolactis	0	0.0322	0.1083		
		g_Leuconostoc.s_Leuconostoc_mesenteroides	0.066	0.2214	0.1388		
g_Streptococcus.s_Streptococcus_thermophilus	0.51	0.6166	0.4948				

K01655	LYS21, L	K01655	6.0732	4.552	3.3823
		g__Debaryomyces.s__Debaryomyces_hansenii	5.639	3.2392	1.837
		K01655unclassified	0.4342	1.3128	1.5453
K12524	thrA	K12524	2.5816	4.299	4.9317
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.4652	0
		K12524unclassified	2.5816	3.8336	4.9317
K14267	dapC	K14267	0.0676	1.6422	7.1928
		g__Corynebacterium.s__Corynebacterium_glutamicum	0.0676	1.258	1.5587
		K14267unclassified	0	0.3842	5.634
K00293	LYS9	K00293	2.825	2.4804	0.9558
		g__Debaryomyces.s__Debaryomyces_hansenii	2.825	2.4804	0.6867
		K00293unclassified	0	0	0.2692
K05824	LYS12	K05824	2.9884	1.8968	1.1403
		g__Debaryomyces.s__Debaryomyces_hansenii	2.9884	1.8968	1.1403
K00838	ARO8	K00838	3.0582	1.7656	0.9483
		g__Debaryomyces.s__Debaryomyces_hansenii	3.0582	1.7656	0.9483
K05822	dapH, dap	K05822	1.934	0.5476	0.9953
		g__Enterococcus.s__Enterococcus_faecalis	0	0.067	0
		g__Lactobacillus.s__Lactobacillus_delbrueckii	0.0678	0.1182	0.1628
		g__Lactobacillus.s__Lactobacillus_helveticus	0	0.0658	0
		g__Lactobacillus.s__Lactobacillus_johnsonii	0.4224	0	0
		g__Staphylococcus.s__Staphylococcus_xylosum	1.106	0.2968	0.4125
		K05822unclassified	0.3378	0	0.4198
K05825	LYSN	K05825	0.3644	1.305	1.3328
		K05825unclassified	0.3644	1.305	1.3328
K12525	metL	K12525	0	0.2996	0
		g__Klebsiella.s__Klebsiella_pneumoniae	0	0.2996	0

Supplementary Table 6. The model parameters of OPLS-DA in different comparative groups

CD vs. HFD	A	r2x	r2x(cum)	r2y	r2y(cum)	q2	q2(cum)
	p1	0.235	0.235	0.868	0.868	0.694	0.694
	o1	0.249	0.484	0.0977	0.0977	0.15	0.15
	O2	0.0965	0.58	0.0211	0.119	0.0998	0.249
	sum		0.58		0.986		0.943
HFD vs. FBT	A	r2x	r2x(cum)	r2y	r2y(cum)	q2	q2(cum)
	p1	0.377	0.377	0.892	0.892	0.795	0.795
	o1	0.262	0.639	0.0517	0.0517	-0.0257	-0.0257
	sum	NA	0.786	NA	0.99	NA	0.848