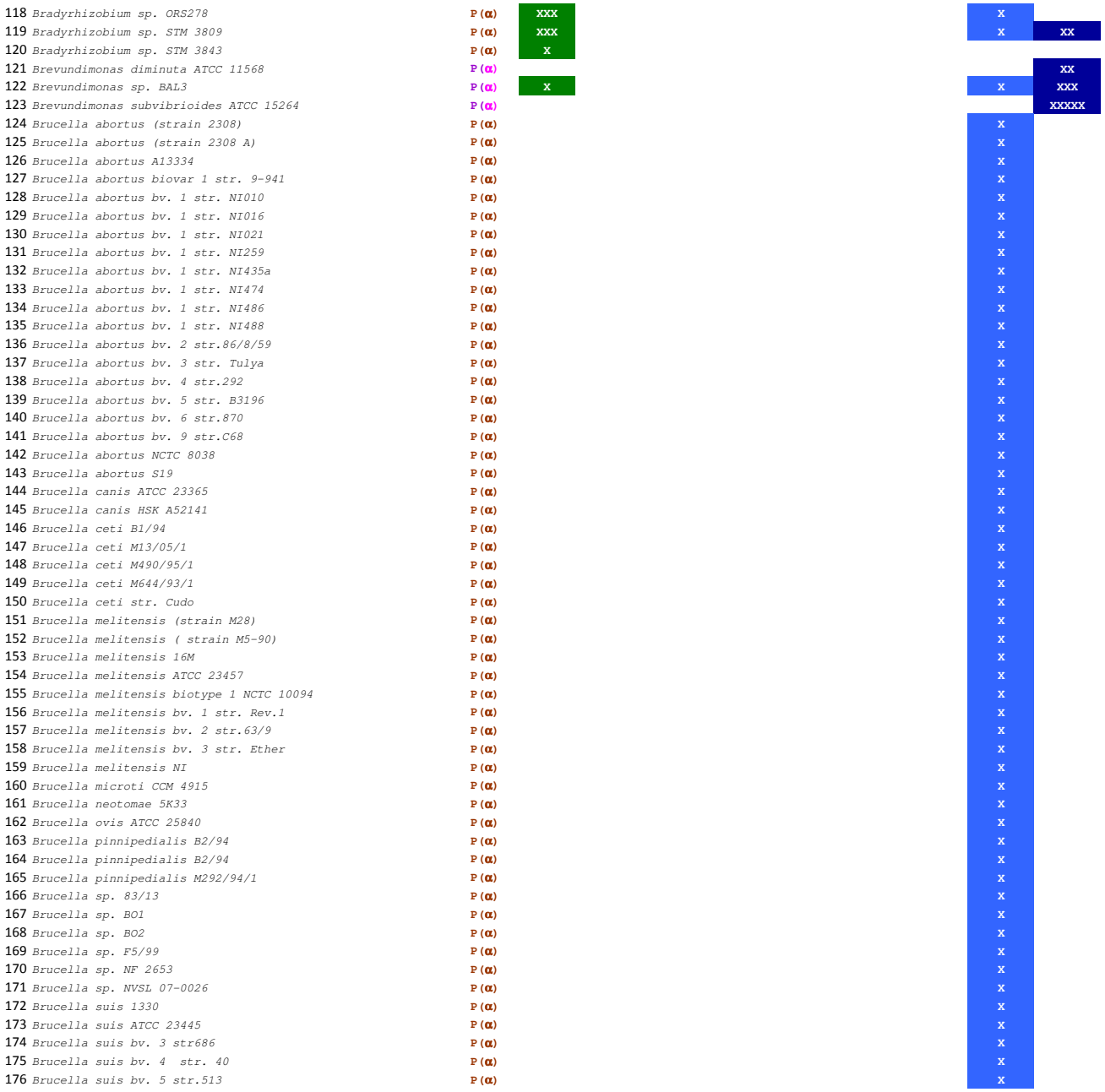
S2. supplementary material number (X) and occurence of bilin-GAF, LOV and BLUF proteins in prokaryotic

Nr.Org.	Species/strain	Group	Bilin binding GAF domains	LOV	BLUF
1	*Bacillus amyloliquefaciens ATCC 23350*	F		x	
2	*Bacillus amyloliquefaciens CAU-B946*	F		x	
3	*Bacillus amyloliquefaciens FZB42*	F		x	
4	*Bacillus amyloliquefaciens IT-45 GN=KSO_06344*	F		x	
5	*Bacillus amyloliquefaciens TA208*	F		x	
6	*Bacillus amyloliquefaciens XH7*	F		x	
7	*Bacillus amyloliquefaciens (Bacillus velezensis)*	F		x	
8	*Bacillus atrophaeus str. 1942*	F		x	
9	*Bacillus megaterium ATCC 12872*	F		x	
10	*Bacillus megaterium DSM 319*	F		x	
11	*Bacillus megaterium WSH-002*	F		x	
12	*Bacillus pumilus ATCC 7061*	F		xx	
13	*Bacillus pumilus SAFR-032*	F		xx	
14	*Bacillus selenitireducens ATCC 700615*	F		x	
15	*Bacillus subtilis BSn5*	F		x	
16	*Bacillus subtilis subsp. natto BEST195*	F		x	
17	*Bacillus subtilis subsp. spizizenii ATCC 23059*	F		x	
18	*Bacillus subtilis subsp. spizizenii ATCC 6633*	F		x	
19	*Bacillus subtilis subsp. spizizenii TU-B-10*	F		x	
20	*Bacillus subtilis subsp. subtilis RO-NN-1*	F		x	
21	*Bacillus subtilis subsp. subtilis str. 168*	F		x	
22	*Bacillus subtilis subsp. subtilis str. SC-8*	F		x	
23	*Listeria grayi DSM 20601*	F		x	
24	*Listeria innocua ATCC 33091*	F		x	
25	*Listeria innocua Clip11262*	F		x	
26	*Listeria innocua FSL J1-023*	F		x	
27	*Listeria innocua FSL S4-378*	F		x	
28	*Listeria ivanovii (strain ATCC BAA-678/ PAM 55)*	F		x	
29	*Listeria marthii FSL S4-120*	F		x	
30	*Listeria monocytogenes 10403S*	F		x	
31	*Listeria monocytogenes 4b H7858*	F		x	
32	*Listeria monocytogenes EGD-e*	F		x	
33	*Listeria monocytogenes F2365*	F		x	
34	*Listeria monocytogenes F6854*	F		x	
35	*Listeria monocytogenes F6900*	F		x	
36	*Listeria monocytogenes Finland 1998*	F		x	
37	*Listeria monocytogenes FSL J1-194*	F		x	
38	*Listeria monocytogenes FSL J2-071*	F		x	
39	*Listeria monocytogenes FSL N1-017*	F		x	
40	*Listeria monocytogenes FSL N3-165*	F		x	
41	*Listeria monocytogenes FSL R2-503*	F		x	
42	*Listeria monocytogenes FSL R2-561*	F		x	
43	*Listeria monocytogenes HPB2262*	F		x	
44	*Listeria monocytogenes J0161*	F		x	
45	*Listeria monocytogenes J1-220*	F		x	
46	*Listeria monocytogenes J1816*	F		x	
47	*Listeria monocytogenes J2818*	F		x	
48	*Listeria monocytogenes str. Scott A*	F		x	
49	*Listeria monocytogenes serotype 1/2a 08-5578*	F		x	
50	*Listeria monocytogenes serotype 1/2a 08-5923*	F		x	
51	*Listeria monocytogenes serotype 4a HCC23*	F		x	
52	*Listeria monocytogenes serotype 4a M7*	F		x	
53	*Listeria monocytogenes serotype 4b Clip81459*	F		x	
54	*Listeria monocytogenes serotype 4c L99*	F		x	
55	*Listeria seeligeri FSL N1-067*	F		x	
56	*Listeria seeligeri FSL S4-171*	F		x	
57	*Listeria seeligeri serovar 1/2b ATCC 35967*	F		x	
58	*Listeria welshimeri serovar 6b str. SLCC5334*	F		x	

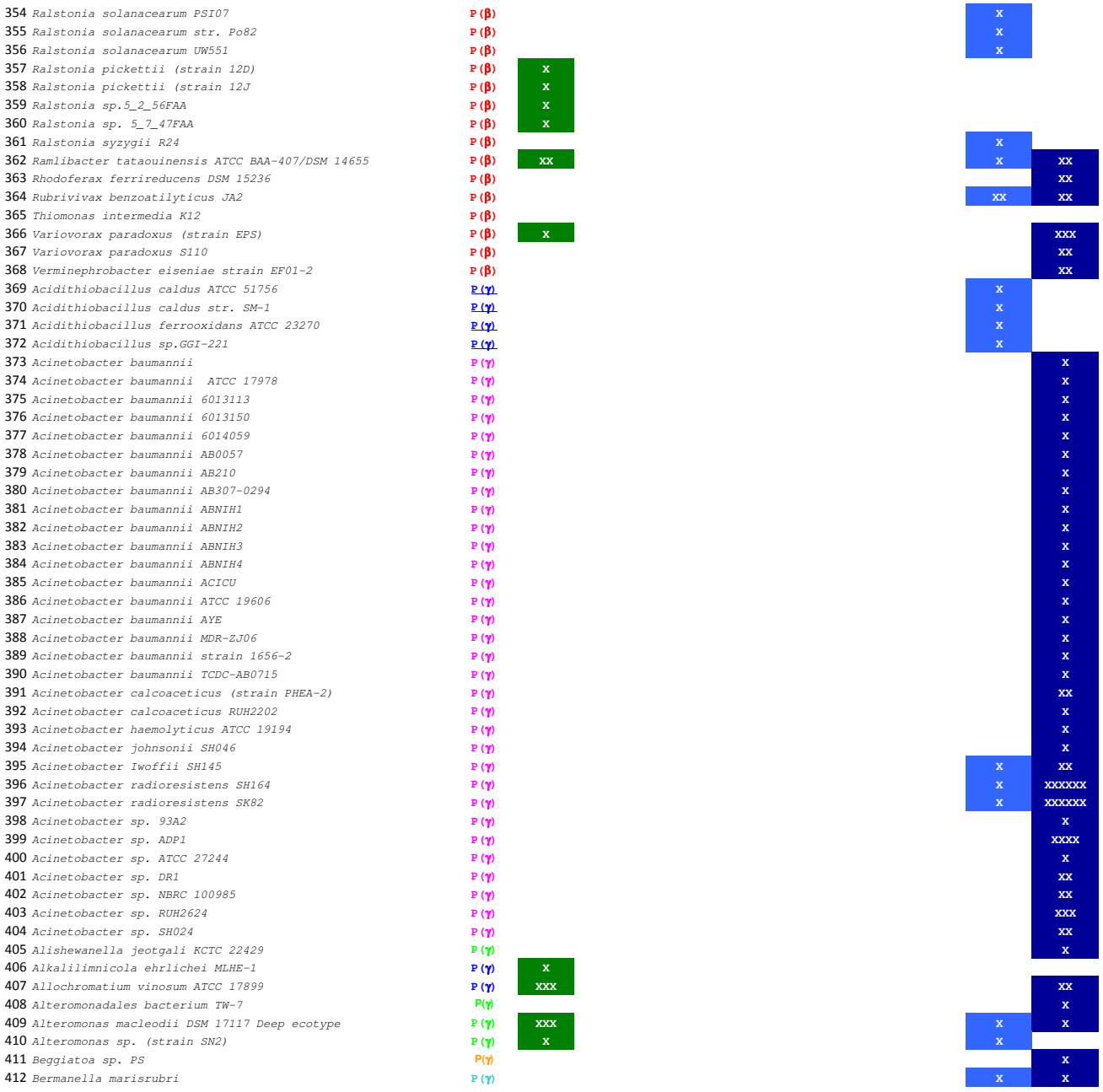
59	*Oceanobacillus iheyensis HTE831*	F		x	
60	*Paenibacillus polymyxa (strain E681)*	F		x	
61	*Paenibacillus sp. HGF5*	F	x		
62	*Paenibacillus sp. HGF7*	F	x		
63	*Planococcus donghaensis MPA1U2*	F		x	
64	*Actinosynnema mirum ATCC 29888 / DSM 43827*	Ac	x		
65	*Arthrobacter aurescens TC1*	Ac		x	
66	*Beutenbergia cavernae DSM 12333*	Ac		x	
67	*Blastococcus saxobsidens (strain DD2)*	Ac	x	x	
68	*Cellulomonas fimi DSM 20113*	Ac	x	x	
69	*Cellulomonas flavigena DSM 20109*	Ac	x	x	
70	*Cellvibrio gilvus ATCC 13127*	Ac	x		
71	*Clavibacter michiganensis subsp. sepedonicus ATCC 33113*	Ac			xx
72	*Clavibacter michiganensis subsp. michiganensis NCPPB 382*	Ac			xx
73	*Corynebacterium efficiens DSM 44549 / YS-314*	Ac			x
74	*Frankia alni (strain ACN14a)*	Ac	x		
75	*Frankia sp. CN3*	Ac		x	
76	*Frankia sp. str. Eul1c*	Ac		x	
77	*Geodermatophilus obscurus DSM 43160*	Ac	xx	x	
78	*Isoptericola variabilis (strain 225)*	Ac	x		
79	*Kineococcus radiotolerans SRS30216*	Ac	x	xxx	
80	*Leifsonia xyli subsp. xyli*	Ac			x
81	*Microbacterium testaceum (strain StLB037)*	Ac			x
82	*Mycobacterium colombiense CECT 3035*	Ac	x		
83	*Mycobacterium flavescens ATCC 700033*	Ac	x		
84	*Mycobacterium parascrofulaceum ATCC BAA-614*	Ac	x		
85	*Mycobacterium rhodesiae (strain NBB3)*	Ac	x		
86	*Mycobacterium sp. Spyr1*	Ac	x		
87	*Mycobacterium tusciae JS617*	Ac	x		
88	*Nakamurella multipartita DSM 44233*	Ac		xx	
89	*Rubrobacter xylanophilus DSM 9941*	Ac		x	
90	*Sanguibacter keddieii ATCC 51767/DSM 10542*	Ac	x		
91	*Streptomyces albus J1074*	Ac	x		
92	*Streptomyces griseus subsp. griseus JCM 4626*	Ac	x		
93	*Streptomyces griseus XylebKG-1*	Ac	x		
94	*Streptomyces sp. SirexAA-E*	Ac	x		
95	*Streptomyces venezuelae ATCC 10712/ CBS 650.69*	Ac	x		
96	*Acetobacter tropicalis NBRC 101654*	P (α)	x		
97	*Afipia sp. 1NLS2*	P (α)			x
98	*Agrobacterium sp. ATCC 31749*	P (α)	xx		
99	*Agrobacterium sp.(strain H13-3)*	P (α)	x	xx	
100	*Agrobacterium tumefaciens 5A*	P (α)	x	xx	
101	*Agrobacterium tumefaciens C58*	P (α)	xx		
102	*Agrobacterium tumefaciens CCNWGS0286*	P (α)	xx		
103	***Agrobacterium tumefaciens F2***	P (α)	xx		
104	*Agrobacterium vitis (strain S4 / ATCC BAA-846)*	P (α)	xx	x	
105	*Ahrensia sp. R2A130*	P (α)			x
106	*alpha proteobacterium BAL199*	P (α) U			x
107	*Asticcacaulis biprosthecum C19*	P (α)			x
108	*Asticcacaulis excentricus (strain ATCC 15261)*	P (α)		x	
109	*Azorhizobium caulinodans ATCC 43989/DSM 5975*	P (α)	x		
110	*Azospirillum amazonense Y2*	P (α)	x		
111	*Azospirillum brasilense Sp245*	P (α)	xx		
112	*Azospirillum lipoferum 4B*	P (α)	x		xx
113	*Azospirillum sp. B510*	P (α)	xx		
114	*Bradyrhizobium japonicum USDA 6*	P (α)	x		
115	*Bradyrhizobium sp. BTAi1*	P (α)	xxx	x	
116	*Bradyrhizobium sp. ORS 285*	P (α)	xx	x	
117	*Bradyrhizobium sp. ORS 375*	P (α)	xxxx	x	

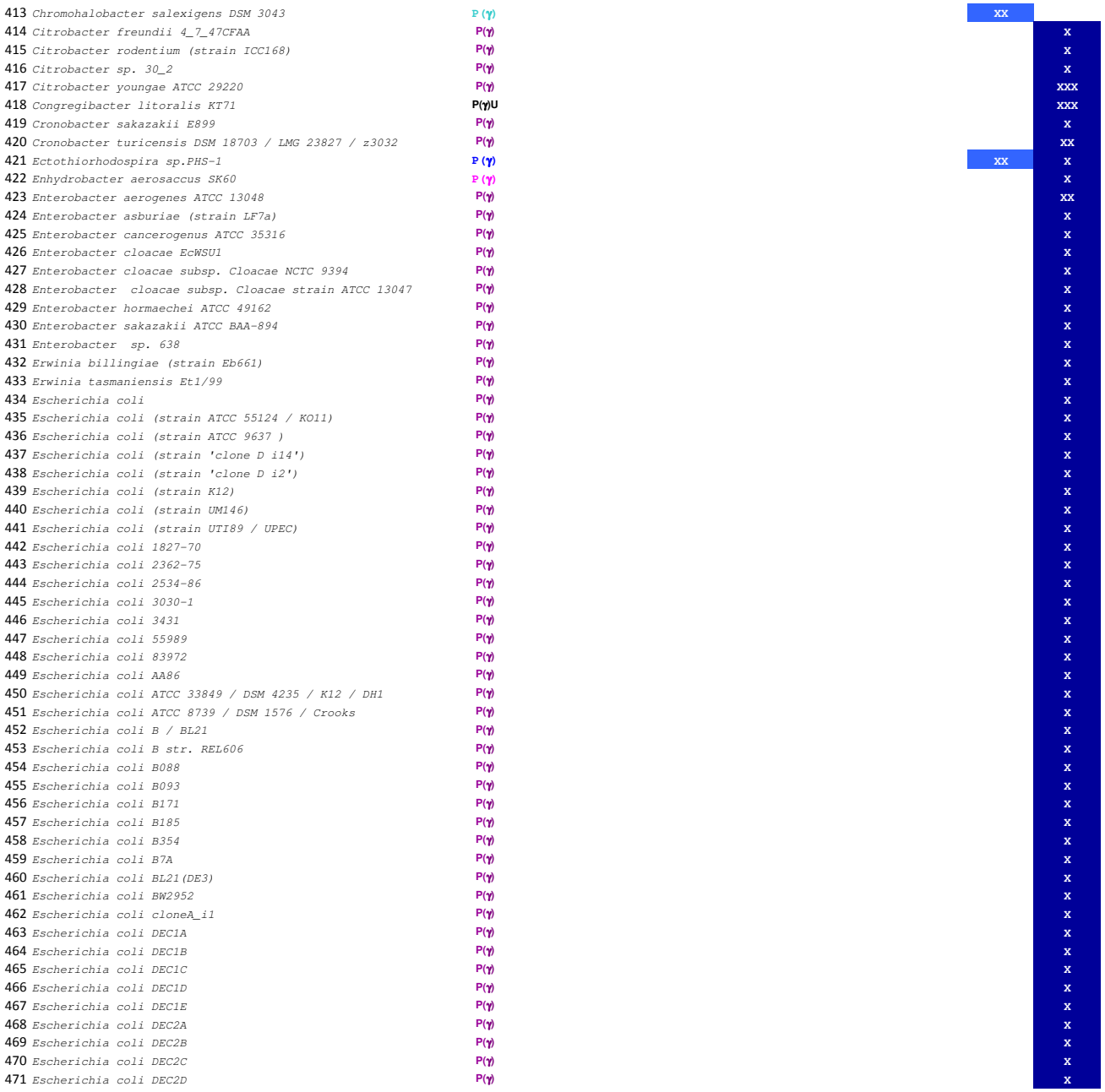


177	*Brucella suis VBI22*	P (α)		x	
178	*Caulobacter crescentus CB15*	P (α)		x	
179	*Caulobacter crescentus NA1000 / CB15N*	P (α)		x	
180	*Caulobacter segnis DSM 7131*	P (α)	x	x	
181	*Caulobacter sp. K31*	P (α)		x	
182	*Citreicella sp. SE45*	P (α)	x		x
183	*Dinoroseobacter shibae DFL 12*	P (α)		xxx	x
184	*Erythrobacter litoralis HTCC2594*	P (α)		xxxx	
185	*Erythrobacter sp. NAP1*	P (α)	x	x	
186	*Erythrobacter sp. SD-21*	P (α)	x	x	
187	*Fulvimarina pelagi HTCC2506*	P (α)	x	x	xxx
188	*Gluconacetobacter sp.SXCC-1*	P (α)	x		
189	*Gluconacetobacter xylinus NBRC 3288/BCRC 11682*	P (α)	x		
190	*Gluconobacter morbifer G707*	P (α)	x		
191	*Gluconobacter oxydans 621H*	P (α)	x		
192	*Granulibacter bethesdensis CGDNIH1*	P (α)	x	x	
193	*Hoeflea phototrophica DFL-43*	P (α)			x
194	*Hyphomicrobium denitrificans ATCC 51888 / DSM 1869*	P (α)	x		
195	*Hyphomonas neptunium ATCC 15444*	P (α)			x
196	*Jannaschia sp. (strain CCS1)*	P (α)			xxx
197	*Ketogulonicigenium vulgare str. Y25*	P (α)		x	
198	*Ketogulonicigenium vulgare WSH-001*	P (α)		x	
199	*Labrenzia aggregata IAM*	P (α)	x		x
200	*Labrenzia alexandrii DFL-11*	P (α)		x	x
201	*Loktanella vestfoldensis SKA53*	P (α)			x
202	*Magnetospirillum gryphiswaldense*	P (α)	x		xx
203	*Manganese-oxidizing bacterium (strain SI85-9A1)*	P (α)	x	xx	
204	*Maricaulis maris (strain MCS10)*	P (α)			xx
205	*Maritimibacter alkaliphilus HTCC2654*	P (α)	x		
206	*Mesorhizobium australicus WSM2073*	P (α)		x	
207	*Mesorhizobium australicus WSM2074*	P (α)		x	
208	*Mesorhizobium ciceri bv. biserrulae (strain HAMBI 2942)*	P (α)		x	
209	*Methylobacterium chloromethanicum CM4*	P (α)	x	xxxxxx	xxxx
210	*Methylobacterium extorquens AM1*	P (α)	x	xxxxxx	xx
211	*Methylobacterium extorquens DM4*	P (α)	x	xxxxx	xx
212	*Methylobacterium extorquens DSM 13060*	P (α)	x	xxxxxxx	xx
213	*Methylobacterium extorquens PA1*	P (α)	x	xxxxx	xxx
214	*Methylobacterium nodulans ORS 2060*	P (α)		xx	x
215	*Methylobacterium populi BJ001*	P (α)	x	xxxxxxxx	xx
216	*Methylobacterium radiotolerans ATCC 27329*	P (α)	xxx	xxxxx	xxxx
217	*Methylobacterium sp. 4-46*	P (α)	xx	xx	xxxxx
218	*Methylocella silvestris BL2 / DSM 15510*	P (α)	xx		
219	*Methylocystis sp.ATCC 49242*	P (α)		xxx	x
220	*Novosphingobium aromaticivorans DSM 12444*	P (α)		xx	
221	*Novosphingobium pentaromativorans US6-1*	P (α)	x		
222	*Novosphingobium sp. PP1Y*	P (α)	x		
223	*Oceanibulbus indolifex HEL-45*	P (α)		x	
224	*Oceanicola batsensis HTCC2597*	P (α)	x		
225	*Oceanicola granulosus HTCC2516*	P (α)	x	x	
226	*Ochrobactrum anthropi ATCC 49188*	P (α)	x	x	
227	*Ochrobactrum intermedium LMG 3301*	P (α)		x	
228	*Parvibaculum lavamentivorans DS-1*	P (α)			x
229	*Parvularcula bermudensis HTCC2503*	P (α)	x	xx	
230	*Phaeobacter gallaeciensis 2.10*	P (α)	x		
231	*Phaeobacter gallaeciensis DSM 17395*	P (α)	x		
232	*Phaeospirillum molischianum DSM 120*	P (α)			x
233	*Phenylobacterium zucineum HLK1*	P (α)	x		x
234	*Phaeospirillum molischianum DSM 120*	P (α)	x		
235	*Polymorphum gilvum LMG 25793 / CGMCC 1.9160 / SL003B-26A1*	P (α) poly			x

236	*Pseudovibrio sp. JE062*	P (α)			x
237	*Puniceispirillum marinum (strain IMCC1322)*	P (α) U			x
238	*Rhizobium etli CIAT 652*	P (α)	x		
239	*Rhizobium etli CNPAF512*	P (α)	x		
240	*Rhizobium leguminosarum bv viciae 3841*	P (α)	x	x	
241	*Rhizobium leguminosarum bv. trifolii WSM1325*	P (α)	x	xx	
242	*Rhizobium leguminosarum bv. trifolii WSM2304*	P (α)	x	x	
243	*Rhizobium sp. PDO-076*	P (α)	x		
244	*Rhodobacter sphaeroides ATCC 17023*	P (α)	xx	x	xxx
245	*Rhodobacter sphaeroides ATCC 17025*	P (α)	x	x	xxx
246	*Rhodobacter sphaeroides ATCC 17029*	P (α)			xx
247	*Rhodobacter sphaeroides KD131*	P (α)		x	xx
248	*Rhodobacter sphaeroides WS8N*	P (α)			xxx
249	*Rhodobacteraceae bacterium HTCC2083*	P (α)	x		x
250	*Rhodobacterales bacterium Y4I*	P (α)	x		x
251	*Rhodomicrobium vannielii ATCC 17100 / ATH 3.1.1*	P (α)	x		
252	*Rhodopseudomonas palustris BisA53*	P (α)	xxx		xxxx
253	*Rhodopseudomonas palustris BisB5*	P (α)	xxxxx		
254	*Rhodopseudomonas palustris BisB18*	P (α)	xx		xxx
255	*Rhodopseudomonas palustris CGA009*	P (α)	xxxxx		xxx
256	*Rhodopseudomonas palustris DX-1*	P (α)	xxxx		xxx
257	*Rhodopseudomonas palustris HaA2*	P (α)	xxxxx		x
258	*Rhodopseudomonas palustris TIE-1*	P (α)	xxxxxx		xxx
259	*Rhodospirillum centenum ATCC 51521 / SW*	P (α)	xx	x	x
260	*Rhodospirillum photometricum DSM 122*	P (α)	x		x
261	*Rhodospirillum rubrum ATCC 11170*	P (α)	x		
262	*Rhodospirillum rubrum F11*	P (α)	x		
263	*Roseibium sp. TrichSKD4*	P (α)			x
264	*Roseobacter denitrificans OCh 114*	P (α)		x	x
265	*Roseobacter litoralis DSM 6996*	P (α)		xx	x
266	*Roseobacter sp. AzwK-3b*	P (α)			x
267	*Roseobacter sp. CCS2*	P (α)		x	xx
268	*Roseobacter sp. GAI101*	P (α)			x
269	*Roseobacter sp. MED193*	P (α)			x
270	*Roseobacter sp. SK209-2-6*	P (α)			x
271	*Roseomonas cervicalis ATCC 49957*	P (α)	x	x	
272	*Roseovarius sp. 217*	P (α)			x
273	*Roseovarius sp. HTCC2601*	P (α)		x	x
274	*Roseovarius sp. TM1035*	P (α)			x
275	*Ruegeria sp. R11*	P (α)	x		
276	*Sagittula stellata E-37*	P (α)	x	x	xx
277	*Silicibacter sp. TrichCH4B*	P (α)			xx
278	*Silicibacter sp. TM1040*	P (α)	x		xx
279	*Sphingobium chlorophenolicum L-1*	P (α)			x
280	*Sphingobium japonicum NBRC 101211 / UT26S*	P (α)	x		x
281	*Sphingomonas sp. SKA58*	P (α)	x	x	x
282	*Sphingomonas sp.S17*	P (α)	x	x	x
283	*Sphingomonas wittichii RW1*	P (α)			x
284	*Sphingopyxis alaskensis RB2256*	P (α)		x	x
285	*Sulfitobacter sp. EE-36*	P (α)			x
286	*Sulfitobacter sp. NAS-14.1*	P (α)			x
287	*Xanthobacter autotrophicus ATCC BAA-1158/Py2*	P (α)	x		
288	*Accumulibacter phosphatis (strain UW-1)*	P (β)		x	
289	*Achromobacter arsenitoxydans SY8*	P (β)	x		
290	*Achromobacter piechaudii ATCC 43553*	P (β)	x		
291	*Achromobacter xylosoxidans AXX-A*	P (β)	x		
292	*Achromobacter xylosoxidans C54*	P (β)	x		
293	*Acidovorax avenae DSM 7227*	P (β)	x	x	xx
294	*Acidovorax avenae subsp. Citrulli AAC00-1*	P (β)	x	x	xx

295	*Acidovorax delafieldii 2AN*	P (β)				xx
296	*Acidovorax ebreus TPSY*	P (β)				x
297	*Acidovorax sp. JS42*	P (β)				x
298	*Acidovorax sp. NO-1*	P (β)				xxx
299	*Alicycliphilus denitrificans DSM 14773*	P (β)				x
300	*Alicycliphilus denitrificans JCM 14587*	P (β)				x
301	*beta proteobacterium KB13*	P (β) U				x
302	*Blood disease bacterium R229*	P (β)			x	
303	*Bordetella avium (strain 197N)*	P (β)				x
304	*Burkholderia gladioli (strain BSR3)*	P (β)	x			
305	*Burkholderia glumae (strain BGR1)*	P (β)	x			
306	*Burkholderia graminis C4D1M*	P (β)			x	
307	*Burkholderia phymatum STM815*	P (β)			xx	
308	*Burkholderia phytofirmans PsJN*	P (β)	x		x	
309	*Burkholderia sp. CCGE1001*	P (β)			x	
310	*Burkholderia sp. CCGE1002*	P (β)			x	
311	*Burkholderia sp. CCGE1003*	P (β)	x		x	x
312	*Burkholderia sp. H160*	P (β)			x	
313	*Burkholderia sp.YI23*	P (β)	xx		x	
314	*Burkholderia xenovorans LB400*	P (β)			x	
315	*Burkholderiales bacterium JOSHI_001*	P (β)			x	xxxx
316	*Candidatus Burkholderia kirkii UZHbot1*	P (β)	x			
317	*Chromobacterium violaceum*	P (β)				x
318	*Comamonas testosteroni (strain CNB-2)*	P (β)				x
319	*Comamonas testosteroni ATCC 11996*	P (β)				x
320	*Comamonas testosteroni S44*	P (β)				x
321	*Cupriavidus basilensis OR16*	P (β)				x
322	*Cupriavidus necator ATCC 17699*	P (β)				x
323	*Cupriavidus necator ATCC 43291*	P (β)				x
324	*Cupriavidus taiwanensis LMG 19424*	P (β)				x
325	*Curvibacter putative symbiont of Hydra magnipapillata*	P (β)				xxx
326	*Delftia acidovorans SPH-1*	P (β)				x
327	*Delftia sp. (strain Cs1-4)*	P (β)				x
328	*Gallionella capsiferriformans (strain ES-2*	P (β)	x			
329	*Herbaspirillum seropedicae SmR1*	P (β)	x		x	x
330	*Herminiimonas arsenicoxydans*	P (β)			xx	x
331	*Leptothrix cholodnii SP-6*	P (β)				x
332	*Limnobacter sp. MED105*	P (β)				xx
333	*Lutiella nitroferrum 2002*	P (β)			x	
334	*Methylibium petroleiphilum PM1*	P (β)			x	xx
335	*Methylotenera mobilis JLW8*	P (β)				x
336	*Methylotenera sp. 301*	P (β)				xx
337	*Methyloversatilis universalis FAM5*	P (β)	x			xx
338	*Methylovorus sp. SIP3-4*	P (β)	x		x	
339	*Methylovorus sp. MP688*	P (β)	x		x	
340	*Nitrosospira multiformis ATCC 25196*	P (β)			x	
341	*Nitrosomonas sp. AL212*	P (β)			x	
342	*Nitrosomonas sp. (strain Is79A3)*	P (β)			x	
343	*Oxalobacteraceae bacterium IMCC9480*	P (β)	x		x	x
344	*Polaromonas naphthalenivorans CJ2*	P (β)			x	xx
345	*Polaromonas sp. strain JS666*	P (β)				xx
346	*Polynucleobacter necessarius STIR1*	P (β)				x
347	*Polynucleobacter sp. QLW-P1DMWA-1*	P (β)				x
348	*Pseudogulbenkiania sp. (strain NH8B)*	P (β)			x	
349	*Ralstonia eutropha H16*	P (β)				x
350	*Ralstonia eutropha JMP134*	P (β)				x
351	*Ralstonia metallidurans CH34*	P (β)				x
352	*Ralstonia solanacearum (Pseudomonas solanacearum)*	P (β)			x	
353	*Ralstonia solanacearum GMI1000*	P (β)			x	





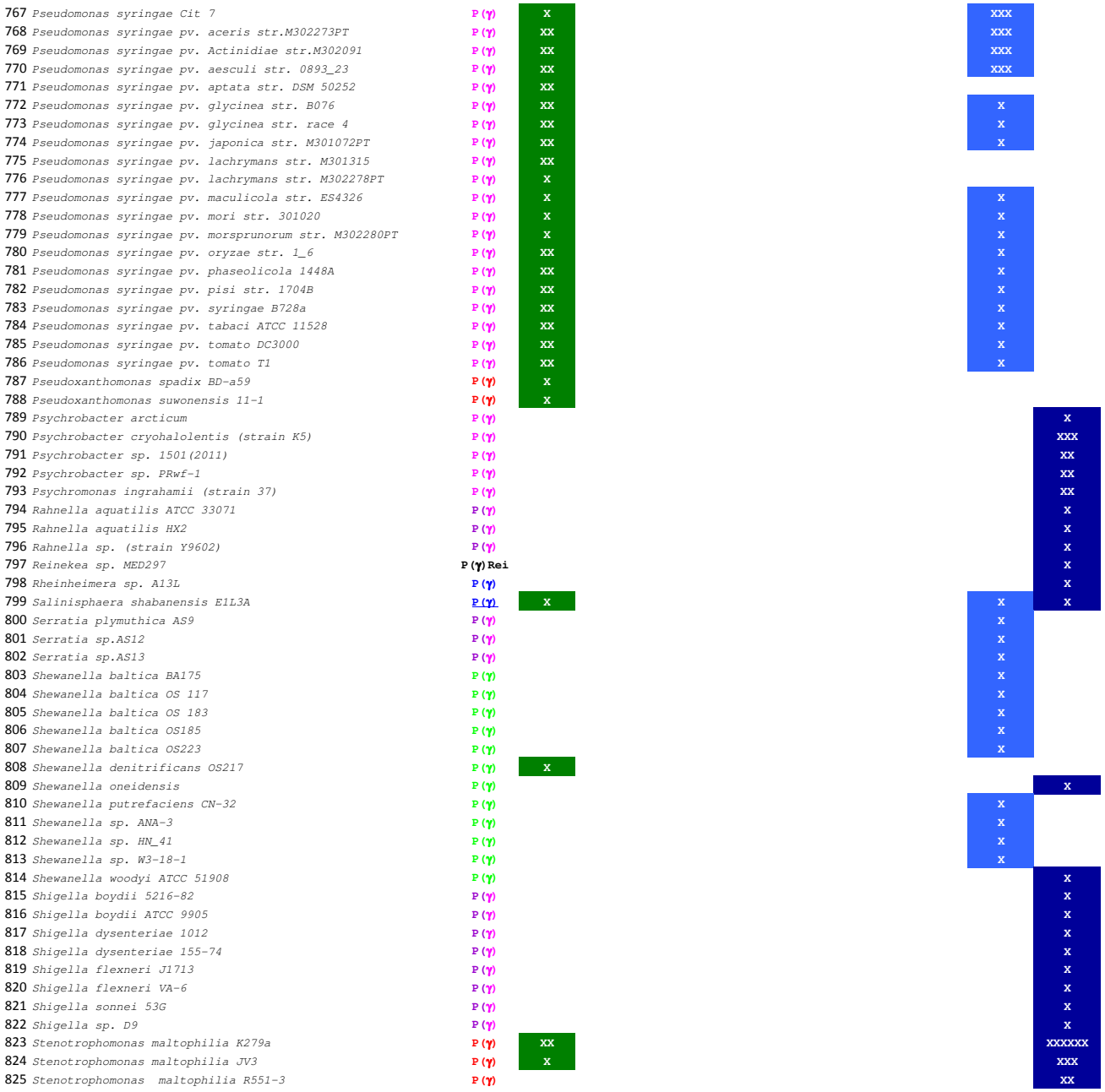
472	*Escherichia coli DEC2E*	P(γ)	x
473	*Escherichia coli DEC3F*	P(γ)	
474	*Escherichia coli DEC5A*	P(γ)	x
475	*Escherichia coli DEC5B*	P(γ)	x
476	*Escherichia coli DEC5C*	P(γ)	x
477	*Escherichia coli DEC5D*	P(γ)	x
478	*Escherichia coli DEC5E*	P(γ)	x
479	*Escherichia coli DEC6A*	P(γ)	x
480	*Escherichia coli DEC6B*	P(γ)	x
481	*Escherichia coli DEC6C*	P(γ)	x
482	*Escherichia coli DEC6D*	P(γ)	x
483	*Escherichia coli DEC6E*	P(γ)	x
484	*Escherichia coli DEC7A*	P(γ)	x
485	*Escherichia coli DEC7B*	P(γ)	x
486	*Escherichia coli DEC7C*	P(γ)	x
487	*Escherichia coli DEC7D*	P(γ)	x
488	*Escherichia coli DEC7E*	P(γ)	x
489	*Escherichia coli DEC8A*	P(γ)	x
490	*Escherichia coli DEC8B*	P(γ)	x
491	*Escherichia coli DEC8C*	P(γ)	x
492	*Escherichia coli DEC8D*	P(γ)	x
493	*Escherichia coli DEC8E*	P(γ)	x
494	*Escherichia coli DEC9A*	P(γ)	x
495	*Escherichia coli DEC9B*	P(γ)	x
496	*Escherichia coli DEC9C*	P(γ)	x
497	*Escherichia coli DEC9D*	P(γ)	x
498	*Escherichia coli DEC9E*	P(γ)	x
499	*Escherichia coli DEC10A*	P(γ)	x
500	*Escherichia coli DEC10B*	P(γ)	x
501	*Escherichia coli DEC10C*	P(γ)	x
502	*Escherichia coli DEC10D*	P(γ)	x
503	*Escherichia coli DEC10E*	P(γ)	x
504	*Escherichia coli DEC11A*	P(γ)	x
505	*Escherichia coli DEC11B*	P(γ)	x
506	*Escherichia coli DEC11C*	P(γ)	x
507	*Escherichia coli DEC11D*	P(γ)	x
508	*Escherichia coli DEC11E*	P(γ)	x
509	*Escherichia coli DEC12A*	P(γ)	x
510	*Escherichia coli DEC12B*	P(γ)	x
511	*Escherichia coli DEC12C*	P(γ)	x
512	*Escherichia coli DEC12D*	P(γ)	x
513	*Escherichia coli DEC12E*	P(γ)	x
514	*Escherichia coli DEC13A*	P(γ)	x
515	*Escherichia coli DEC13B*	P(γ)	x
516	*Escherichia coli DEC13C*	P(γ)	x
517	*Escherichia coli DEC13D*	P(γ)	x
518	*Escherichia coli DEC13E*	P(γ)	x
519	*Escherichia coli DEC14A*	P(γ)	x
520	*Escherichia coli DEC14B*	P(γ)	x
521	*Escherichia coli DEC14C*	P(γ)	x
522	*Escherichia coli DEC14D*	P(γ)	x
523	*Escherichia coli DEC15A*	P(γ)	x
524	*Escherichia coli DEC15B*	P(γ)	x
525	*Escherichia coli DEC15C*	P(γ)	x
526	*Escherichia coli DEC15D*	P(γ)	x
527	*Escherichia coli DEC15E*	P(γ)	x
528	*Escherichia coli DH10B*	P(γ)	x
529	*Escherichia coli E101*	P(γ)	x
530	*Escherichia coli E110019*	P(γ)	x

531	*Escherichia coli E1167*	P(γ)	x
532	*Escherichia coli E128010*	P(γ)	xx
533	*Escherichia coli E1520*	P(γ)	x
534	*Escherichia coli E22*	P(γ)	x
535	*Escherichia coli E24377A*	P(γ)	x
536	*Escherichia coli E482*	P(γ)	x
537	*Escherichia coli EC4100B*	P(γ)	x
538	*Escherichia coli ED1a*	P(γ)	x
539	*Escherichia coli EPECa14*	P(γ)	x
540	*Escherichia coli F11*	P(γ)	x
541	*Escherichia coli FVEC1302*	P(γ)	x
542	*Escherichia coli FVEC1412*	P(γ)	x
543	*Escherichia coli G58-1*	P(γ)	x
544	*Escherichia coli H252*	P(γ)	x
545	*Escherichia coli H263*	P(γ)	x
546	*Escherichia coli H299*	P(γ)	x
547	*Escherichia coli H397*	P(γ)	x
548	*Escherichia coli H489*	P(γ)	x
549	*Escherichia coli H494*	P(γ)	x
550	*Escherichia coli H591*	P(γ)	x
551	*Escherichia coli H736*	P(γ)	x
552	*Escherichia coli IAI1*	P(γ)	x
553	*Escherichia coli IAI39*	P(γ)	x
554	*Escherichia coli M605*	P(γ)	x
555	*Escherichia coli M718*	P(γ)	x
556	*Escherichia coli M863*	P(γ)	x
557	*Escherichia coli MS 107-1*	P(γ)	x
558	*Escherichia coli MS 110-3*	P(γ)	x
559	*Escherichia coli MS 115-1*	P(γ)	x
560	*Escherichia coli MS 116-1*	P(γ)	x
561	*Escherichia coli MS 117-3*	P(γ)	x
562	*Escherichia coli MS 119-7*	P(γ)	x
563	*Escherichia coli MS 124-1*	P(γ)	x
564	*Escherichia coli MS 145-7*	P(γ)	x
565	*Escherichia coli MS 146-1*	P(γ)	x
566	*Escherichia coli MS 153-1*	P(γ)	x
567	*Escherichia coli MS 16-3*	P(γ)	x
568	*Escherichia coli MS 175-1*	P(γ)	x
569	*Escherichia coli MS 182-1*	P(γ)	x
570	*Escherichia coli MS 185-1*	P(γ)	x
571	*Escherichia coli MS 187-1*	P(γ)	x
572	*Escherichia coli MS 196-1*	P(γ)	x
573	*Escherichia coli MS 198-1*	P(γ)	x
574	*Escherichia coli MS 200-1*	P(γ)	x
575	*Escherichia coli MS 21-1*	P(γ)	x
576	*Escherichia coli MS 45-1*	P(γ)	x
577	*Escherichia coli MS 57-2*	P(γ)	x
578	*Escherichia coli MS 60-1*	P(γ)	x
579	*Escherichia coli MS 69-1*	P(γ)	x
580	*Escherichia coli MS 78-1*	P(γ)	x
581	*Escherichia coli MS 79-10*	P(γ)	x
582	*Escherichia coli MS 84-1*	P(γ)	x
583	*Escherichia coli MS 85-1*	P(γ)	x
584	*Escherichia coli NC101*	P(γ)	x
585	*Escherichia coli O1:K1 / APEC*	P(γ)	x
586	*Escherichia coli O103:H2 (strain 12009 / EHEC)*	P(γ)	x
587	*Escherichia coli O104:H4 str. 01-09591*	P(γ)	x
588	*Escherichia coli O104:H4 str. 04-8351*	P(γ)	x
589	*Escherichia coli O104:H4 str. 09-7901*	P(γ)	x

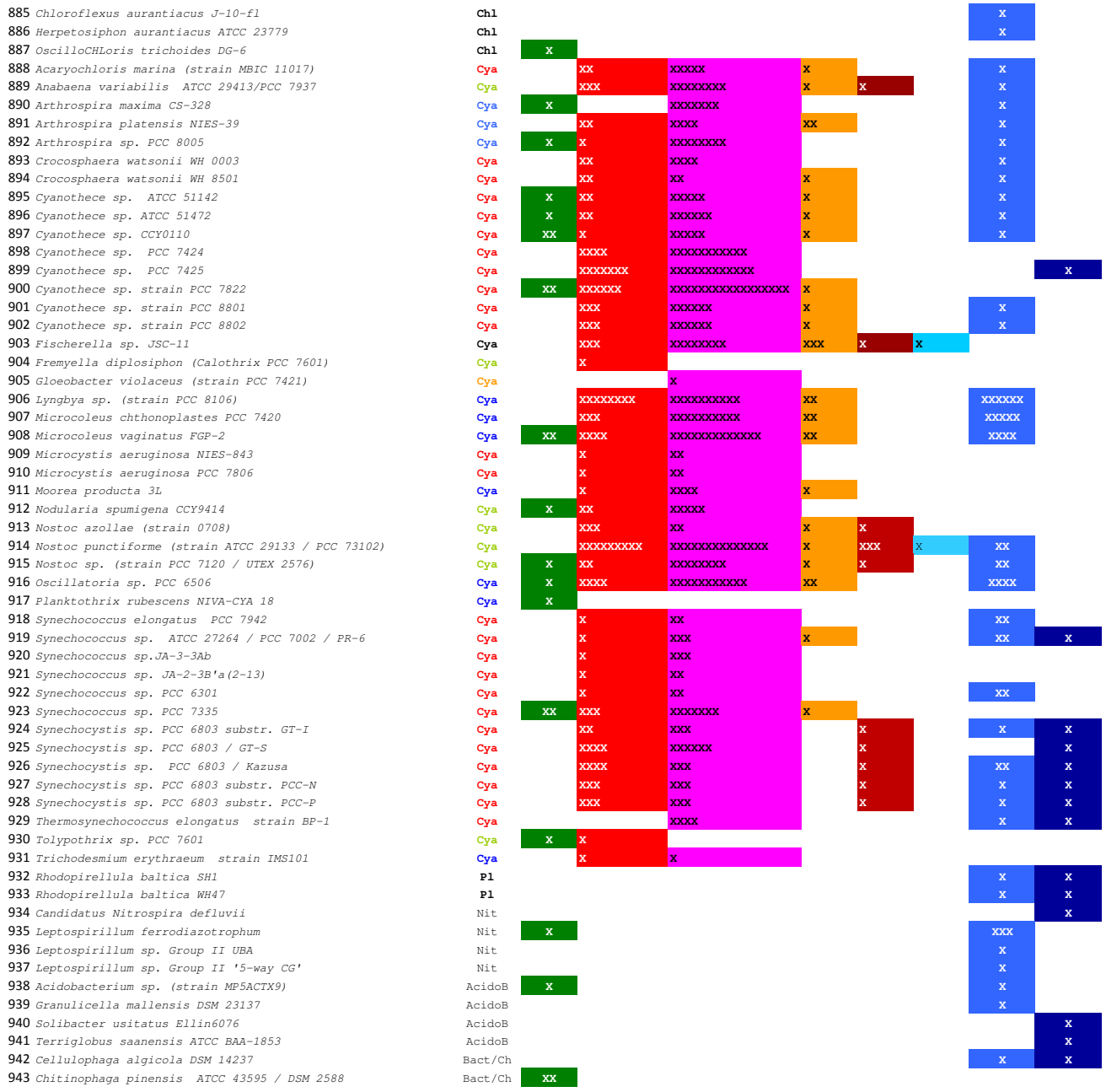
590	*Escherichia coli O104:H4 str. 11-3677*	P(γ)	x
591	*Escherichia coli O104:H4 str. 11-4404*	P(γ)	x
592	*Escherichia coli O104:H4 str. 11-4522*	P(γ)	x
593	*Escherichia coli O104:H4 str. 11-4623*	P(γ)	x
594	*Escherichia coli O104:H4 str. 11-4632 C1*	P(γ)	x
595	*Escherichia coli O104:H4 str. 11-4632 C2*	P(γ)	x
596	*Escherichia coli O104:H4 str. 11-4632 C3*	P(γ)	x
597	*Escherichia coli O104:H4 str. 11-4632 C4*	P(γ)	x
598	*Escherichia coli O104:H4 str. 11-4632 C5*	P(γ)	x
599	*Escherichia coli O104:H4 str. C227-11*	P(γ)	x
600	*Escherichia coli O104:H4 str. C236-11*	P(γ)	x
601	*Escherichia coli O104:H4 str. LB226692*	P(γ)	x
602	*Escherichia coli O111:H- (strain 11128 / EHEC)*	P(γ)	x
603	*Escherichia coli O127:H6 (strain E2348/69 / EPEC)*	P(γ)	x
604	*Escherichia coli O150:H5 (strain SE15)*	P(γ)	x
605	*Escherichia coli O157:H- str. 493-89*	P(γ)	x
606	*Escherichia coli O157:H- str. H 2687*	P(γ)	x
607	*Escherichia coli O157:H43 str. T22*	P(γ)	x
608	*Escherichia coli O157:H7 str. G5101*	P(γ)	x
609	*Escherichia coli O157:H7 str. LSU-61*	P(γ)	x
610	*Escherichia coli O17:K52:H18 (strain UMN026 / ExPEC)*	P(γ)	x
611	*Escherichia coli O18:K1:H7 (strain IHE3034 / ExPEC)*	P(γ)	x
612	*Escherichia coli O26:H11 (strain 11368 / EHEC)*	P(γ)	x
613	*Escherichia coli O44:H18 (strain 042 / EAEC)*	P(γ)	x
614	*Escherichia coli O55:H7 str. 3256-97*	P(γ)	x
615	*Escherichia coli O55:H7 str. RM12579*	P(γ)	x
616	*Escherichia coli O55:H7 str. USDA 5905*	P(γ)	x
617	*Escherichia coli O6*	P(γ)	x
618	*Escherichia coli O6:K15:H31 536 / UPEC)*	P(γ)	x
619	*Escherichia coli O83:H1 (strain NRG 857C / AIEC)*	P(γ)	x
620	*Escherichia coli O9:H4 / HS*	P(γ)	x
621	*Escherichia coli OK1180*	P(γ)	x
622	*Escherichia coli OK1357*	P(γ)	x
623	*Escherichia coli OR:K5:H- (strain ABU 83972)*	P(γ)	x
624	*Escherichia coli PCN033*	P(γ)	x
625	*Escherichia coli RN587/1*	P(γ)	x
626	*Escherichia coli S88*	P(γ)	x
627	*Escherichia coli SCI-07*	P(γ)	x
628	*Escherichia coli SE11*	P(γ)	x
629	*Escherichia coli SMS-3-5 / SECEC*	P(γ)	x
630	*Escherichia coli STEC_7v*	P(γ)	x
631	*Escherichia coli STEC_94C*	P(γ)	x
632	*Escherichia coli STEC_B2F1*	P(γ)	x
633	*Escherichia coli STEC_C165-02*	P(γ)	x
634	*Escherichia coli STEC_DG131-3*	P(γ)	x
635	*Escherichia coli STEC_EH250*	P(γ)	x
636	*Escherichia coli STEC_H.1.8*	P(γ)	x
637	*Escherichia coli STEC_MHI813*	P(γ)	x
638	*Escherichia coli STEC_S1191*	P(γ)	x
639	*Escherichia coli TA124*	P(γ)	x
640	*Escherichia coli TA143*	P(γ)	x
641	*Escherichia coli TA206*	P(γ)	x
642	*Escherichia coli TA271*	P(γ)	x
643	*Escherichia coli TW10509*	P(γ)	x
644	*Escherichia coli TX1999*	P(γ)	x
645	*Escherichia coli UMNF18*	P(γ)	x
646	*Escherichia coli UMNK88*	P(γ)	x
647	*Escherichia coli WV_060327*	P(γ)	x
648	*Escherichia coli XH001*	P(γ)	x

649	*Escherichia coli XH140A*	P(γ)			x
650	*Escherichia hermannii NBRC 105704*	P(γ)			xx
651	*Escherichia sp. 3_2_53FAA*	P(γ)			x
652	*Frateuria aurantia ATCC 33424*	P(γ)			xx
653	*gamma proteobacterium HIMB55*	P(γ)U			x
654	*gamma proteobacterium IMCC1989*	P(γ)U			x
655	*gamma proteobacterium IMCC2047*	P(γ)U			x
656	*gamma proteobacterium IMCC3088*	P(γ)U			x
657	*gamma proteobacterium NOR5-3*	P(γ)U	x		xxx
658	*Glaciecola nitratireducens (strain JCM 12485)*	P (γ)		x	x
659	*Grimontia hollisae CIP 101886*	P (γ)			x
660	*Halomonas boliviensis LC1*	P (γ)	x	x	
661	*Halomonas sp. GFAJ-1*	P (γ)	x	x	
662	*Halomonas sp.HAL1*	P (γ)		x	
663	*Halomonas sp.TD01*	P (γ)	x	x	
664	*Halothiobacillus neapolitanus (strain ATCC23641)*	P (γ)		x	x
665	*Idiomarina baltica OS145*	P (γ)	x		
666	*Idiomarina sp.A28L*	P (γ)	x	x	
667	*Kangiella koreensis DSM 16069*	P (γ)		x	x
668	*Klebsiella oxytoca 10-5242*	P(γ)			xx
669	*Klebsiella oxytoca 10-5243*	P(γ)			xxx
670	*Klebsiella oxytoca 10-5245*	P(γ)			xx
671	*Klebsiella oxytoca 10-5250*	P(γ)			xx
672	*Klebsiella oxytoca ATCC 8724*	P(γ)			xx
673	*Klebsiella pneumoniae*	P(γ)			xx
674	*Klebsiella pneumoniae 342*	P(γ)			xx
675	*Klebsiella pneumoniae NTUH-K2044*	P(γ)			xx
676	*Klebsiella pneumoniae subsp. pneumoniae ATCC 700721*	P(γ)			xx
677	*Klebsiella pneumoniae subsp. pneumoniae HS11286*	P(γ)			xx
678	*Klebsiella pneumoniae subsp. rhinoscleromatis ATCC 13884*	P(γ)			xx
679	*Klebsiella sp. 1_1_55*	P(γ)			xx
680	*Klebsiella sp. 4_1_44FAA*	P(γ)			x
681	*Klebsiella sp. MS 92-3*	P(γ)			xx
682	*Klebsiella variicola (strain At-22)*	P(γ)			xx
683	*Legionella drancourtii LLAP12*	P(γ)			x
684	*Legionella longbeachae D-4968*	P(γ)			x
685	*Legionella longbeachae serogroup 1 (strain NSW150)*	P(γ)			x
686	*Marichromatium purpuratum 984*	P (γ)	xx	x	xx
687	*marine gamma proteobacterium HTCC2080*	P (γ) U			xxx
688	*marine gamma proteobacterium HTCC2148*	P (γ) U			x
689	*Marinobacter adhaerens (strain HP15)*	P (γ)		x	xx
690	*Marinobacter algicola DG893*	P (γ)		x	x
691	*Marinobacter aquaeolei VT8*	P (γ)			x
692	*Marinobacter hydrocarbonoclasticus ATCC 49840*	P (γ)			x
693	*Marinobacter manganoxydans MnI7-9*	P (γ)			xx
694	*Marinobacter sp. ELB17*	P (γ)	x		
695	*Marinomonas mediterranea ATCC 700492*	P(γ)			xx
696	*Marinomonas posidonica CECT 7376 / NCIMB 14433*	P(γ)			x
697	*Marinomonas sp. MED121*	P(γ)			xxx
698	*Marinomonas sp. MWYL1*	P(γ)			x
699	*Methylobacter tundripaludum SV96*	P (γ)		x	x
700	*Methylococcus capsulatus str. Bath*	P (γ)		x	
701	*Methylomicrobium alcaliphilum (strain DSM 19304)*	P (γ)	x	xxx	xxxx
702	*Methylomicrobium japanense*	P (γ)			x
703	*Methylomonas methanica (strain MC09)*	P (γ)		x	xxx
704	*Methylophaga aminisulfidivorans MP*	P(γ)			x
705	*Methylophaga thiooxidans DMS010*	P(γ)			xx
706	*Neptuniibacter caesariensis*	P (γ)			xx
707	*Nitrosococcus halophilus (strain Nc4)*	P (γ)		x	

708	*Nitrosococcus oceani AFC27*	P (γ)		x	
709	*Nitrosococcus oceani ATCC 19707*	P (γ)		x	
710	*Nitrosococcus watsoni (strain C-113)*	P (γ)		x	
711	*Pantoea ananatis (strain AJ13355)*	P(γ)			xx
712	*Pantoea ananatis (strain LMG 20103)*	P(γ)			xx
713	*Pantoea ananatis LMG 5342*	P(γ)			xx
714	*Pantoea ananatis PA13*	P(γ)			xx
715	*Pantoea sp. aB*	P(γ)			xxx
716	*Pantoea sp. At-9b*	P(γ)			xx
717	*Pantoea sp. Sc1*	P(γ)			xxx
718	*Pantoea stewartii subsp. stewartii DC283*	P(γ)			xx
719	*Pantoea vagans (strain C9-1)*	P(γ)			xxx
720	*Pseudoalteromonas atlantica T6c /ATCC BAA-1087*	P (γ)	x		xx
721	*Pseudoalteromonas sp. BSi20311*	P (γ)			x
722	*Pseudoalteromonas sp. BSi20439*	P (γ)			x
723	*Pseudoalteromonas sp. BSi20480*	P (γ)			x
724	*Pseudoalteromonas sp. BSi20495*	P (γ)		x	
725	*Pseudoalteromonas sp. BSi20652*	P (γ)			x
726	*Pseudoalteromonas sp. (strain SM9913)*	P (γ)		x	x
727	*Pseudoalteromonas tunicata D2*	P (γ)			xx
728	*Pseudomonas aeruginosa 2192*	P (γ)	x		
729	*Pseudomonas aeruginosa 138244*	P (γ)	x		
730	*Pseudomonas aeruginosa 152504*	P (γ)	x		
731	*Pseudomonas aeruginosa 39016*	P (γ)	x		
732	*Pseudomonas aeruginosa ATCC 15692/PAO1/1C/PRS 101/LMG 12228*	P (γ)	x		
733	*Pseudomonas aeruginosa C3719*	P (γ)	x		
734	*Pseudomonas aeruginosa strain LESB58*	P (γ)	x		
735	*Pseudomonas aeruginosa M18*	P (γ)	x		
736	*Pseudomonas aeruginosa MPAO1/P1*	P (γ)	x		
737	*Pseudomonas aeruginosa MPAO1/P2*	P (γ)	x		
738	*Pseudomonas aeruginosa NCMG1179*	P (γ)	x		
739	*Pseudomonas aeruginosa NCGM2.S1*	P (γ)	x		
740	*Pseudomonas aeruginosa PA7*	P (γ)	x		
741	*Pseudomonas aeruginosa UCBPP-PA14*	P (γ)	x		
742	*Pseudomonas brassicacearum NFM421*	P (γ)	x	x	
743	*Pseudomonas entomophila L48*	P (γ)	x		
744	*Pseudomonas fluorescens F113*	P (γ)		x	
745	*Pseudomonas fluorescens PF0-1*	P (γ)	x	x	
746	*Pseudomonas fluorescens PF-5*	P (γ)	x	x	
747	*Pseudomonas fluorescens (strain SBW25)*	P (γ)	x	x	
748	*Pseudomonas fluorescens WH6*	P (γ)	x	xx	
749	*Pseudomonas fulva (strain 12-X)*	P (γ)	x	xx	
750	*Pseudomonas mendocina (strain NK-01)*	P (γ)	x	xx	
751	*Pseudomonas mendocina ymp*	P (γ)		x	
752	*Pseudomonas psychrotolerans L19*	P (γ)	xx	xx	
753	*Pseudomonas putida (Arthrobacter siderocapsulatus)*	P (γ)	xx	x	
754	*Pseudomonas putida F1*	P (γ)	xx	xx	
755	*Pseudomonas putida GB-1*	P (γ)	xx	x	
756	*Pseudomonas putida KT2440*	P (γ)	xx	xx	
757	*Pseudomonas putida S16*	P (γ)	x	xx	
758	*Pseudomonas putida (strain BIRD-1)*	P (γ)	xx	xx	
759	*Pseudomonas putida (strain W619)*	P (γ)	xx	xx	
760	*Pseudomonas savastanoi pv. savastanoi NCPPB 3335*	P (γ)	xx	x	
761	*Pseudomonas sp. 2_1_26*	P (γ)	x		
762	*Pseudomonas sp. TJI-51*	P (γ)	x	xxx	
763	*Pseudomonas stutzeri DSM 4166*	P (γ)	x	xxx	
764	*Pseudomonas stutzeri DSM 5190*	P (γ)	x	xxx	
765	*Pseudomonas stutzeri ATCC 14405*	P (γ)	x		
766	*Pseudomonas stutzeri (strain A1501)*	P (γ)	x	xxx	



826	*Stenotrophomonas sp. SKA14*	P (γ)	X		XX
827	*Thermochromatium tepidum*	P (γ)	X		
828	*Thioalkalimicrobium aerophilum AL3*	P(γ)		X	X
829	*Thioalkalimicrobium cyclicum DSM 14477*	P (γ)		X	
830	*Thioalkalivibrio sp. (strain HL-EbGR7)*	P (γ)		X	X
831	*Thioalkalivibrio sp. (strain K90mix)*	P (γ)		X	X
832	*Thioalkalivibrio thiocyanoxidans ARh4*	P (γ)		X	
833	*Thiocapsa marina 5811*	P (γ)	X	X	
834	*Thiocystis violascens DSM 198*	P (γ)	XXXX	X	X
835	*Thiomicrospira denitrificans ATCC 33889*	P(γ)		X	
836	*Thiorhodococcus drewsii AZ1*	P (γ)	X		XX
837	*Thiorhodospira sibirica ATCC 700588*	P (γ)		X	XX
838	*Thiorhodovibrio sp. 970*	P (γ)	XXX	X	XX
839	*uncultured gamma proteobacterium*	P (γ) U			
840	*Vibrio cholera RC385*	P (γ)			X
841	*Vibrio coralliilyticus ATCC BAA-450*	P (γ)			XXXX
842	*Vibrio ichthyoenteri ATCC 700023*	P (γ)			X
843	*Vibrio nigripulchritudo ATCC 27043*	P (γ)			XX
844	*Vibrio orientalis CIP 102891 = ATCC 33934*	P (γ)			X
845	*Vibrio parahaemolyticus 16*	P (γ)		X	
846	*Vibrio scophthalmi LMG 19158*	P (γ)			X
847	*Vibrio sinaloensis DSM 21326*	P (γ)			X
848	*Vibrio sp. MED222*	P (γ)			X
849	*Vibrio splendidus 12B01*	P (γ)			X
850	*Vibrio splendidus Mel32*	P (γ)			X
851	*Vibrio tubiashii ATCC 19109*	P (γ)			X
852	*Vibrionales bacterium SWAT-3*	P (γ)			X
853	*Xanthomonas albilineans (strain GPE PC73)*	P (γ)	X	X	
854	*Xanthomonas axonopodis pv. citri str.306*	P (γ)	X	X	XX
855	*Xanthomonas axonopodis pv. citrumelo F1*	P (γ)	X	X	
856	*Xanthomonas axonopodis pv. punicae str. LMG 859*	P (γ)	X	X	X
857	*Xanthomonas campestris pv campestris 8004*	P (γ)	X	X	
858	*Xanthomonas campestris pv campestris ATCC 33913*	P (γ)	X	X	
859	*Xanthomonas campestris pv. campestris B100*	P (γ)	X	X	
860	*Xanthomonas campestris pv. raphani 756C*	P (γ)	X	X	
861	*Xanthomonas campestris pv. vesicatoria 85-10*	P (γ)	X	X	
862	*Xanthomonas citri pv. mangiferaeindicae LMG 94*	P (γ)	X		X
863	*Xanthomonas fuscans subsp. aurantifolii str. ICPB 10535*	P (γ)	X	X	XX
864	*Xanthomonas fuscans subsp. aurantifolii str. ICPB 11122*	P (γ)	X	X	
865	*Xanthomonas gardneri ATCC 19865*	P (γ)	X	X	
866	*Xanthomonas oryzae pv. oryzae MAFF 311018*	P (γ)	X	X	
867	*Xanthomonas oryzae pv. oryzae PXO99A*	P (γ)	X	X	
868	*Xanthomonas oryzae pv. oryzicola BLS256*	P (γ)	X	X	
869	*Xanthomonas perforans 91-118*	P (γ)	X	X	X
870	*Xanthomonas vesicatoria ATCC 35937*	P (γ)	X	X	
871	*Bdellovibrio bacteriovorus*	P (δ)			X
872	*Corallococcus coralloides DSM 2259*	P (δ)	X		
873	*Desulfatibacillum alkenivorans AK-01l*	P (δ)			X
874	*Desulfococcus oleovorans Hxd3*	P (δ)			X
875	*Haliangium ochraceum DSM 14365 / JCM 11303*	P (δ)	X		
876	*Myxococcus xanthus DK1622*	P (δ)			X
877	*Stigmatella aurantiaca DW4/3-1*	P (δ)	XXX		X
878	*Sulfuricurvum kujiense DSM 16994*	P (ε)		X	X
879	*Magnetococcus sp. MC-1*	P (Magn)			X
880	*uncultured proteobacterium del RiverFos06H03*	PUnc			XXX
881	*uncultured proteobacterium*	PUnc			X
882	*uncultured proteobacterium*	PUnc			X
883	*Chloroflexus aggregans DSM 9485*	Chl		X	
884	*Chloroflexus aurantiacus ATCC 29364*	Chl		X	



944	*Chloroherpeton thalassium ATCC35110*	Bact/Ch		xx	x
945	*Chryseobacterium gleum ATCC 35910*	Bact/Ch	x		
946	*Cytophaga hutchinsonii ATCC 33406/NCIMB 9469*	Bact/Ch	x		
947	*Dokdonia donghaensis MED134*	Bact/Ch	x		x
948	*Dyadobacter fermentans ATCC 700827/DSM 18053*	Bact/Ch	x		
949	*Flavobacteria bacterium BBFL7*	Bact/Ch			x
950	*Flavobacteriaceae bacterium (strain 3519-10*	Bact/Ch	x		
951	*Flavobacterium johnsoniae ATCC 17061/DSM 2064/UW101*	Bact/Ch	xx		
952	*Flavobacterium sp. (strain MED217)*	Bact/Ch	x		
953	*Gillisia limnaea DSM 15749*	Bact/Ch			xxxx
954	*Gramella forsetii KT0803*	Bact/Ch	x		x
955	*Kordia algicida OT-1*	Bact/Ch	x		
956	*Krokinobacter sp. 4H-3-7-5*	Bact/Ch	x		xx
957	*Marivirga tractuosa ATCC 23168*	Bact/Ch			x
958	*Microscilla marina ATCC 23134*	Bact/Ch			x
959	*Mucilaginibacter paludis DSM 18603*	Bact/Ch	x		xxxx
960	*Muricauda ruestringensis (strain DSM 13258)*	Bact/Ch		x	
961	*Niastella koreensis DSM 17620 / KACC 11465*	Bact/Ch	x		
962	*Pedobacter heparinus DSM 2366*	Bact/Ch	x		
963	*Pedobacter sp. BAL39*	Bact/Ch	xx	x	x
964	*Pedobacter saltans DSM 12145*	Bact/Ch	x		
965	*Polaribacter dokdonensis MED152*	Bact/Ch			x
966	*Polaribacter sp.MED152*	Bact/Ch	x		
967	*Psychroflexus torquis ATCC 700755*	Bact/Ch			x
968	*Sphingobacterium sp. (strain 21)*	Bact/Ch	x	x	
969	*Sphingobacterium spiritivorum ATCC 33300*	Bact/Ch	xx		
970	*Sphingobacterium spiritivorum ATCC 33861*	Bact/Ch	xx		
971	*Spirosoma linguale ATCC 33905/DSM 74*	Bact/Ch	x		xx
972	*unidentified eubacterium SCB49*	Bact/Ch			x
973	*Zobellia galactanivorans DSM 12802*	Bact/Ch			xx
974	*Zunongwangia profunda DSM 18752*	Bact/Ch	x		x
975	*Deinococcus deserti VCD115*	DeTh	xx		
976	*Deinococcus gobiensis I-0*	DeTh	x		
977	*Deinococcus maricopensis DSM 21211*	DeTh	x		
978	*Deinococcus radiodurans ATCC 13939/DSM 20539*	DeTh	x		
979	*Meiothermus ruber ATCC 35948*	DeTh		x	
980	*Truepera radiovictrix DSM 17093*	DeTh		xx	
981	*Lentisphaera araneosa HTCC2155*	Lent			x
982	*Chthoniobacter flavus Ellin428*	Verr			x
983	*Coraliomargarita akajimensis DSM 45221*	Verr			x
984	*Verrucomicrobiae bacterium DG1235*	Verr			xx
985	*Leptonema illini DSM 21528*	Spi			x
1	*Haladaptatus paucihalophilus DX253*	EuA		x	
2	*Halalkalicoccus jeotgali DSM 18796*	EuA		x	
3	*Haloarcula hispanica DSM 4426*	EuA		xx	
4	*Haloarcula marismortui ATCC43049*	EuA		xxx	
5	*Haloferax volcanii DSM 3757*	EuA		xxx	
6	*Halophilic archaeon DL31*	EuA		x	
7	*Halopiger xanaduensis DSM 18323*	EuA		x	
8	*Halorhabdus tiamatea SARL4B*	EuA		x	
9	*Halorhabdus utahensis DSM 12940*	EuA		x	
10	*Halorubrum lacusprofundi ATCC 49239*	EuA		xx	
11	*Haloterrigena turkmenica* DSM 5511	EuA		xx	
12	*Methanobacterium sp. AL21*	EuA		x	
13	*Natrialba magadii* ATCC 43099	EuA		x	
14	*Natrinema pellirubrum* DSM 15624	EuA		x	
15	*Natronobacterium gregoryi* SP2	EuA		xx	
16	*Natronomonas pharaonis* DSM 2160	EuA		xx	

Electronic Supplementary Material (ESI) for Photochemical & Photobiological Science

Legenda

F	Firmicutes
Ac	Actinobacteria
P (α)	α–proteobacteria>Caulobacterales
P (α)	α–proteobacteria>Parvularculales
P (α)	α–proteobacteria>Rhizobiales
P (α)	α–proteobacteria>Rhodobacterales
P (α)	α–proteobacteria>Rhodospirillales
P (α)	α–proteobacteria>Sphingomonadales
P (α) U	α–proteobacteria>Uncultured
P (α) poly	α–proteobacteria>Polymorphum
P (β)	β–proteobacteria>Burkholderiales
P (β)	β–proteobacteria>Gallionellales
P (β)	β–proteobacteria>Methylophilales
P (β)	β–proteobacteria>Neisseriales
P (β)	β–proteobacteria>Nitrosomonadales
P (β)	β–proteobacteria>Rhodocyclales
P (β) U	β–proteobacteria>Uncultured
P (γ)	γ–proteobacteria>Acidithiobacillales
P (γ)	γ–proteobacteria>Alteromonadales
P (γ)	γ–proteobacteria>Chromatiales
P(γ)	γ–proteobacteria> Enterobacteriales
P (γ)	γ–proteobacteria>Legionellales
P (γ)	γ–proteobacteria>Methylococcales
P (γ)	γ–proteobacteria>Oceanospirillales
P (γ)	γ–proteobacteria>Pseudomonadales
P(γ)Rei	γ–proteobacteria>Reinekea
P (γ)	γ–proteobacteria>Salinisphaerales
P(γ)	γ–proteobacteria>Thiotrichales
P(γ)U	γ–proteobacteria>Uncultured
P (γ)	γ–proteobacteria>Vibrionales
P (γ)	γ–proteobacteria>Xanthomonadales
P (δ)	δ–proteobacteria
P (ε)	ε–proteobacteria
P (Magn)	Proteobacteria>Magnetococcales
Chl	Chloroflexi
Cya	Cyanobacteria>Chroococcales
Cya	Cyanobacteria>Gloeobacteria
Cya	Cyanobacteria>Nostocales
Cya	Cyanobacteria> Oscillatoriales
Pl	Planctomycetes
Nit	Nitrospirae
Acido	Acidobacteria
Bact/Ch	Bacteroidetes/Chlorobi
DeTh	Deinococcus–Thermus
Lent	Lentisphaerae
Verr	Verrucomicrobia
EuA	Euryarchaeota