

Table 2: Consensus Phylogenetic Groups

Clade	Species in RecA Consensus Clade ⁶	Comprable SS-RNA Consensus ? ¹ , ² , ³	RecA Bootstrap ⁴			sRNA Bootstrap ⁵		
			PP	NJ	FM	DP	NJ	FM
Proteobacteria - 1 ⁷	<i>Escherichia coli</i> , <i>Shigella flexneri</i> , <i>Yersinia pestis</i> , <i>Erwinia carotovora</i> , <i>Serratia marcescens</i> , <i>Enterobacter agglomerans</i> , <i>Proteus vulgaris</i> , <i>Pr.</i> <i>mirabilis</i> , <i>Vibrio cholerae</i> , <i>V. anguillarum</i> , <i>Haemophilus influenzae</i>	YES	78	91	100	100	100	100
Proteobacteria - 2	<i>Azotobacter vinelandii</i> , <i>Pseudomonas aeruginosa</i> , <i>Ps. putida</i> , <i>Ps. fluorescens</i>	YES	100	100	100	100	100	100
Proteobacteria -	1, 2, <i>Acinetobacter calcoaceticus</i>	YES (+ <i>Legpn</i>)	33	63	75	48	85	92
Proteobacteria - 1	<i>Methylobacillus flagellatum</i> , <i>Methylomonas clara</i> , <i>Methylophilus methylotrophus</i> , <i>Burkholderia</i> <i>cepacia</i> , <i>Bordetella pertussis</i>	YES (+ <i>Neigo</i>)	74	84	88	100	100	100
Proteobacteria - 2	<i>Thiobacillus ferrooxidans</i> , <i>Acidiphilium facilis</i>	No	100	100	100	*	*	*
Proteobacteria -	, 1, 2, <i>Xanthomonas oryzae</i> , <i>Neisseria</i> <i>gonorrhoeae</i> , <i>Legionella pneumophila</i>	YES (- <i>Acifa</i>)	53	86	95	90	94	95
Proteobacteria -	<i>Rhodobacter capsulatus</i> , <i>Rho. sphaeroides</i> , <i>Rhizobium meliloti</i> , <i>Rhi. viciae</i> , <i>Rhi. phaseoli</i> , <i>Acetobacter polyoxogenes</i> , <i>Magnetospirillum</i> <i>magnetotacticum</i> , <i>Brucella abortus</i> , <i>Agrobacterium</i> <i>tumefaciens</i> , <i>Rickettsia prowazekii</i>	YES (+ <i>Acifa</i>)	14	68	72	100	100	100
Proteobacteria -	, ,	YES	10	57	58	93	96	96
Proteobacteria -	<i>Myxococcus xanthus</i> 1, <i>M. xanthus</i> 2	YES	43	71	42	*	*	*
Proteobacteria -	<i>Campylobacter jejuni</i> , <i>Helicobacter pylori</i>	YES	100	100	100	100	100	100
Proteobacteria	, , , ,	NO	14	38	49	*	*	36
Gram "+" High GC	<i>Corynebacterium glutamicum</i> , <i>Streptomyces</i> <i>ambofaciens</i> , <i>S. violaceus</i> , <i>S. lividans</i> , <i>Mycobacterium tuberculosis</i> , <i>Myb. leprae</i>	YES	97	100	100	100	100	100
Gram "+" Low GC	<i>Bacillus subtilis</i> , <i>Lactococcus lactis</i> , <i>Streptococcus</i> <i>pneumoniae</i> , <i>Staphylococcus aureus</i> , <i>Acholeplasma laidlawii</i>	YES (+ <i>Mycpn</i> , <i>Mycge</i>)	27	59	63	50	56	80
Mycoplasmas	<i>Mycoplasma mycoides</i> , <i>Myp. pulmonis</i>	YES (+ <i>Achla</i>)	88	100	98	71	88	84
Cyanobacteria	<i>Arabidopsis thaliana</i> , <i>Anabaena variabilis</i> , <i>Synechococcus</i> sp. PCC7942, <i>Syn. sp.</i> PCC7002	YES	100	96	91	100	100	100
Deinococcus-Thermus	<i>Deinococcus radiodurans</i> , <i>Thermus aquaticus</i> , <i>T.</i> <i>thermophilus</i>	NO	95	96	95	*	*	*

¹For those groups which have 1 or 2 additional species in the SS_rRNA tree, the extra species are listed

²Groups found in trees generated by neighbor-joining, Fitch-Margoliash, De Soete and *dnajpars*.

³Abbreviations are for *Legionella pneumophila*, *Neisseria gonorrhoeae*, *Acidiphilium facilis*, *Mycosplasma pneumonia*, *M. genitalium*, and *Acholeplasma laidlawii*

⁴PP = protein parsimony, NJ = neighbor-joining, FM = Fitch-Margoliash, DP = DNA parsimony

⁵Bootstrap values are shown for comprable clade

⁶Groups found in trees generated by neighbor-joining, Fitch-Margoliash, De Soete, *protpars* and PAUP

⁷Not applicable.

⁸Bootstraps were only calculated for trees with the one sequence (see Methods)