

Supplemental Table 1 - Actinobacterial signature proteins with gene lose in some species
 Gao, B., Parmanathan, R. and Gupta, R.S. (2006) *Antonie van Leeuwenhoek*, 90(1):69-91.

(a) Signature proteins specific for *Actinobacteria* but lost in several species.

Protein	ML0761 [NP_301590]	ML0814 [NP_301620]	ML1649 [NP_302131]	ML1666 [NP_302145]	ML2142 [NP_302413]
Length	167 aa	82 aa	140 aa	214 aa	269 aa
Possible function	Unknown				
<i>Mycobacterium leprae</i>	7e-83 (167)	2e-38 (82)	3e-59 (140)	2e-100 (214)	2e-158 (269)
<i>Mycobacterium tuberculosis</i>	4e-67 (175)	2e-29 (90)	5e-50 (158)	8e-69 (210)	5e-124 (262)
<i>Mycobacterium avium</i>	3e-65 (140)	2e-26 (87)	2e-52 (147)	8e-58 (211)	6e-125 (310)
<i>Mycobacterium bovis</i>	7e-67 (139)	2e-29 (90)	5e-50 (158)	8e-69 (210)	5e-124 (262)
<i>Nocardia farcinica</i>	1e-42 (159)	1e-17 (75)	1e-37 (156)	4e-38 (188)	7e-80 (378)
<i>Corynebacterium glutamicum</i>	1e-28 (152)	3e-11 (75)	9e-22 (143)	2e-23 (200)	---
<i>Corynebacterium efficiens</i>	1e-27 (180)	4e-12 (75)	2e-20 (143)	4e-25 (203)	---
<i>Corynebacterium diphtheriae</i>	8e-28 (151)	4e-12 (75)	8e-20 (145)	---	5e-48 (254)
<i>Corynebacterium jeikeium</i>	2e-27 (145)	---	1e-17 (164)	4e-18 (206)	1e-38 (257)
<i>Streptomyces avermitilis</i>	2e-11 (190)	2e-10 (94)	9e-22 (159)	4e-27 (212)	9e-48 (308)
<i>Streptomyces coelicolor</i>	2e-07 (117)	7e-11 (94)	5e-22 (159)	1e-25 (240)	8e-50 (308)
<i>Thermobifida fusca</i>	6e-16 (144)	---	4e-18 (141)	---	2e-48 (272)
<i>Propionibacterium acnes</i>	7e-05 (161)	3e-08 (75)	2e-17 (134)	---	3e-45 (266)
<i>Nocardioides sp.</i>	2e-12 (150)	1e-09 (73)	7e-22 (147)	9e-17 (383)	3e-50 (264)
<i>Frankia sp. Ccl3</i>	1e-19 (197)	5e-10 (118)	7e-17 (145)	---*	6e-45 (329)
<i>Frankia sp. EAN1pec</i>	5e-20 (190)	4e-11 (75)	5e-17 (145)	---*	1e-47 (411)
<i>Kineococcus radiotolerance</i>	2e-17 (144)	2e-10 (74)	1e-24 (142)	9e-33 (237)	1e-51 (332)
<i>Brevibacterium linens</i>	---*	1e-09 (73)	8e-15 (123)	5e-34 (208)	1e-45 (294)
<i>Arthrobacter sp.</i>	6e-10 (122)	3e-09 (74)	14-25 (139)	2e-21 (223)	2e-18 (178)
<i>Leifsonia xyli</i>	---	3e-13 (76)	---	1e-12 (205)	4e-12 (203)
<i>Tropheryma whipplei</i> Twist	---	---	---	7e-14 (184)	---
<i>Tropheryma whipplei</i> TW08/27	---	---	---	7e-14 (184)	---
<i>Bifidobacterium longum</i>	7e-06 (153)	0.002 (74)	3e-18 (141)	2e-10 (245)	5e-31 (395)
Non-Actinobacteria	See note 1	1.2 (1235)	---	See note 2	0.50 (610)
		<i>Oryctolagus cuniculus</i>	---		<i>Pseudomonas fluorescens</i>

1. Also found in *M. magnetotacticum* MS-1 with E-value of 3e-18 (189 aa) [ZP_00049346]; the next non-actinobacterial hit is *Solibacter usitatus* (*Acidobacteria*) with E-value of 0.51 (144 aa).
2. Also found in *M. magnetotacticum* MS-1 with E-value of 2e-24 (166 aa) [ZP_00047772]; the next non-actinobacterial hit is *Sulfolobus acidocaldarius* (*Archaea*) with E-value of 2e-05 (133 aa).