

**Supplemental Table 1(c). Actinobacterial signature proteins which are not present in *Bifidobacterium longum*, *Tropheryma whipplei* and *Leifsonia xyli*.
Gao, B., Parmanathan, R. and Gupta, R.S. (2006) *Antonie van Leeuwenhoek*, 90(1):69-91.**

Protein	ML0169 [NP_301248]	ML0284 [NP_301324]	ML0540 [NP_301459]	ML0561 [NP_301475]	ML0816 [NP_301622]	ML0899 [NP_301683]	ML1300 [NP_301934]
Length	200 aa	137 aa	105 aa	156 aa	341 aa	505 aa	262 aa
Possible function	Unknown	Unknown	mHF	Unknown	Unknown	Unknown	Unknown
<i>Mycobacterium leprae</i>	2e-110 (200)	6e-41 (137)	1e-35 (105)	4e-76 (156)	0 (341)	0 (505)	1e-152 (262)
<i>Mycobacterium tuberculosis</i>	8e-89 (200)	6e-31 (145)	3e-34 (111)	1e-48 (154)	5e-151 (342)	0 (516)	3e-121 (262)
<i>Mycobacterium avium</i>	1e-92 (212)	1e-32 (154)	5e-33 (111)	1e-44 (154)	3e-148 (366)	0 (505)	3e-117 (272)
<i>Mycobacterium bovis</i>	9e-88 (200)	6e-31 (145)	3e-34 (111)	1e-48 (154)	9e-140 (285)	0 (516)	3e-121 (262)
<i>Nocardia farcinica</i>	3e-10 (212)	4e-25 (154)	6e-28 (106)	4e-26 (170)	2e-90 (420)	2e-127 (564)	5e-80 (270)
<i>Corynebacterium glutamicum</i>	1e-17 (266)	1e-17 (138)	3e-26 (106)	2e-15 (193)	3e-64 (289)	7e-78 (509)	5e-35 (235)
<i>Corynebacterium efficiens</i>	1e-16 (266)	9e-19 (140)	6e-26 (106)	2e-12 (196)	9e-63 (289)	4e-74 (521)	6e-39 (259)
<i>Corynebacterium diphtheriae</i>	---	9e-16 (142)	6e-23 (107)	5e-17 (186)	1e-60 (292)	3e-71 (495)	---
<i>Corynebacterium jeikeium</i>	4e-10 (230)	2e-20 (175)	9e-27 (106)	2e-17 (151)	7e-52 (317)	2e-65 (557)	---
<i>Streptomyces avermitilis</i>	3e-37 (300)	3e-18 (137)	1e-15 (107)	2e-05 (154)	6e-24 (516)	9e-47 (466)	8e-62 (261)
<i>Streptomyces coelicolor</i>	2e-37 (277)	6e-18 (143)	1e-15 (107)	7e-06 (156)	2e-28 (559)	---	1e-58 (265)
<i>Thermobifida fusca</i>	3e-20 (219)	3e-16 (138)	2e-18 (105)	9e-07 (156)	2e-25 (257)	---	1e-51 (249)
<i>Propionibacterium acnes</i>	---	1e-04 (175)	2e-11 (106)	---	---	6e-30 (526)	2e-36 (264)
<i>Nocardioides sp.</i>	3e-22 (206)	7e-16 (160)	4e-12 (108)	1e-04 (165)	---	3e-40 (564)	5e-59 (257)
<i>Frankia sp. Ccl3</i>	---	1e-17 (154)	3e-19 (105)	---	---	2e-35 (529)	3e-53 (259)
<i>Frankia sp. EAN1pec</i>	4e-11 (219)	3e-20 (142)	9e-19 (106)	---	---	7e-20 (681)	1e-53 (391)
<i>Kineococcus radiotolerance</i>	---	2e-09 (90)	5e-17 (118)	3e-07 (162)	1e-18 (271)	5e-08 (473)	1e-64 (562)
<i>Brevibacterium linens</i>	1e-05 (228)	1e-12 (153)	8e-12 (103)	3e-07 (153)	6e-13 (261)	---	1e-37 (270)
<i>Arthrobacter sp.</i>	---	1e-15 (140)	4e-11 (116)	---	---	7e-22 (380)	5e-53 (255)
<i>Leifsonia xyli</i>	---	---	---	---	---	---	---
<i>Tropheryma whipplei</i> Twist	---	---	---	---	---	---	---
<i>Tropheryma whipplei</i> TW08/27	---	---	---	---	---	---	---
<i>Bifidobacterium longum</i>	---	---	---	---	---	---	---
Non-Actinobacteria	See note 1	---	4.3 (750)	4.6 (903)	1.6 (411)	3e-04 (449)	See note 2
			<i>Psychrobacter cryohalolentis</i>	<i>Gibberella zeae</i>	<i>Burkholderia pseudomallei</i>	<i>Desulfuromonas acetoxidans</i> 126/335 (37%)	

Protein	ML1706 [NP_302175]	ML2030 [NP_302360]	ML2428A [NP_302573]	ML2442 [NP_302583]	ML2446 [NP_302585]	ML2687 [NP_302714]	Tfu_0365 [YP_288426]
Length	337 aa	157 aa	33 aa	184 aa	441 aa	564 aa	150 aa
Possible function	Unknown	Rpf2	Unknown	Unknown	lipoprotein	Unknown	Unknown
<i>Mycobacterium leprae</i>	2e-176 (337)	2e-87 (157)	2e-10 (33)	e-103 (184)	0 (441)	0 (564)	---
<i>Mycobacterium tuberculosis</i>	2e-134 (337)	3e-51 (176)	2e-10 (33)	5e-60 (183)	0 (451)	0 (560)	1e-32 (149)
<i>Mycobacterium avium</i>	1e-129 (342)	4e-51 (170)	---	2e-70 (169)	0 (446)	0 (545)	1e-32 (204)
<i>Mycobacterium bovis</i>	2e-134 (337)	3e-51 (176)	---	5e-60 (183)	0 (451)	0 (560)	1e-32 (189)
<i>Nocardia farcinica</i>	2e-77 (337)	7e-21 (183)	---	6e-50 (167)	3e-122 (409)	1e-70 (575)	1e-30 (206)
<i>Corynebacterium glutamicum</i>	3e-34 (330)	7e-19 (199)	3e-10 (33)	---	1e-42 (403)	1e-60 (486)	5e-22 (203)
<i>Corynebacterium efficiens</i>	1e-29 (335)	4e-18 (197)	3e-10 (33)	---	2e-41 (403)	2e-65 (572)	4e-25 (173)
<i>Corynebacterium diphtheriae</i>	5e-23 (355)	2e-18 (207)	2e-10 (75)	---	4e-42 (389)	2e-59 (523)	3e-21 (185)
<i>Corynebacterium jeikeium</i>	---	1e-20 (208)	3e-10 (33)	6e-32 (218)	1e-47 (402)	6e-61 (541)	7e-17 (199)
<i>Streptomyces avermitilis</i>	2e-45 (335)	2e-19 (227)	---	7e-40 (163)	3e-43 (423)	9e-43 (505)	6e-26 (151)
<i>Streptomyces coelicolor</i>	3e-43 (331)	5e-20 (244)	2e-07 (32)	9e-40 (168)	1e-42 (424)	2e-42 (502)	4e-25 (154)
<i>Thermobifida fusca</i>	1e-48 (342)	---	3e-06 (32)	1e-35 (173)	6e-52 (450)	2e-20 (456)	6e-87 (150)
<i>Propionibacterium acnes</i>	1e-31 (328)	---	2e-08 (33)	6e-20 (164)	4e-43 (427)	2e-11 (515)	---
<i>Nocardioides sp.</i>	3e-16 (165)	2e-19 (213)	2e-09 (33)	4e-20 (164)	4e-46 (402)	1e-38 (496)	5e-28 (125)
<i>Frankia sp. Ccl3</i>	5e-40 (376)	1e-18 (387)	2e-07 (32)	---	6e-42 (464)	8e-26 (629)	---
<i>Frankia sp. EAN1pec</i>	2e-47 (372)	2e-09 (268)	2e-07 (32)	3e-37 (199)	8e-44 (476)	8e-31 (648)	---
<i>Kineococcus radiotolerance</i>	2e-17 (361)	7e-12 (227)	5e-07 (32)	---	3e-49 (406)	6e-25 (470)	4e-27 (154)
<i>Brevibacterium linens</i>	5e-10 (384)	6e-19 (157)	---	4e-26 (178)	2e-62 (487)	---	5e-25 (192)
<i>Arthrobacter sp.</i>	4e-34 (341)	9e-23 (231)	1e-06 (32)	---	6e-44 (429)	3e-37 (485)	2e-29 (193)
<i>Leifsonia xyli</i>	---	---	---	---	---	---	---
<i>Tropheryma whipplei</i> Twist	---	---	---	---	---	---	---
<i>Tropheryma whipplei</i> TW08/27	---	---	---	---	---	---	---
<i>Bifidobacterium longum</i>	---	---	---	---	---	---	---
Non-Actinobacteria	0.008 (355)	0.11 (228)	0.012 (136)	4.2 (610)	0.097 (2221)	3.2 (390)	0.69 (110)
	<i>Moorella thermoacetica</i>	<i>Pedococcus pentosaceus</i>	<i>Dictyostelium discoideum</i>	<i>Theileria annulata</i>	<i>Bacillus cereus</i>	<i>Aeropyrum pernix</i>	<i>Novosphingobium aromaticivorans</i>

1. Also found in *Idiomarina loihiensis* L2TR (γ -proteobacteria) with E-value of 5e-12 (216 aa) [YP_155014]; *Colwellia psychrerythraea* 34H (γ -proteobacteria) with E-value of 7e-08 (221 aa) [YP_268398]; and the next non-actinobacterial hit is *Solibacter usitatus* with E-value of 0.37 (237 aa).
2. Also found in *Chloroflexus aurantiacus* J-10-fl with E-value of 3e-40 (247 aa) [EAO60923]; and the next non-actinobacterial hit is *Symbiobacterium thermophilum* with E-value of 0.17 (200 aa).