

Table 1: <sup>13</sup>C-xylose responders BLAST against Living Tree Project

OTU ID	Fold change <sup>a</sup>	Day <sup>b</sup>	All days <sup>c</sup>	Top BLAST hits	BLAST %ID	Phylum;Class;Order
OTU.1040	4.78	1	1	<i>Paenibacillus daejeonensis</i>	100.0	Firmicutes Bacilli Bacillales
OTU.1069	3.85	1	1	<i>Paenibacillus terrigena</i>	100.0	Firmicutes Bacilli Bacillales
OTU.107	2.25	3	3	<i>Flavobacterium sp. 15C3</i> , <i>Flavobacterium banpakuense</i>	99.54	Bacteroidetes Flavobacteria Flavobacteriales
OTU.131	3.07	3	3	<i>Flavobacterium fluvii</i> , <i>Flavobacteria bacterium HMD1033</i> , <i>Flavobacterium sp. HMD1001</i>	100.0	Bacteroidetes Flavobacteria Flavobacteriales
OTU.14	3.92	3	1, 3	<i>Flavobacterium oncorhynchi</i> , <i>Flavobacterium glycines</i> , <i>Flavobacterium succinicans</i>	99.09	Bacteroidetes Flavobacteria Flavobacteriales
OTU.159	3.16	3	3	<i>Flavobacterium hibernum</i>	98.17	Bacteroidetes Flavobacteria Flavobacteriales
OTU.183	3.31	3	3	No hits of at least 90% identity	89.5	Bacteroidetes Sphingobacteria Sphingobacteriales
OTU.2040	2.91	1	1	<i>Paenibacillus pectinilyticus</i>	100.0	Firmicutes Bacilli Bacillales
OTU.22	2.8	7	7, 14	<i>Paracoccus sp. NB88</i>	99.09	Proteobacteria Alphaproteobacteria Rhodobacterales
OTU.2379	3.1	3	3	<i>Flavobacterium pectinovorum</i> , <i>Flavobacterium sp. CS100</i>	97.72	Bacteroidetes Flavobacteria Flavobacteriales
OTU.24	2.81	7	7	<i>Cellulomonas aerilata</i> , <i>Cellulomonas humilata</i> , <i>Cellulomonas terrae</i> , <i>Cellulomonas soli</i> , <i>Cellulomonas xylanilytica</i>	100.0	Actinobacteria Micrococcales Cellulomonadaceae
OTU.244	3.08	7	7	<i>Cellulosimicrobium funkei</i> , <i>Cellulosimicrobium terreum</i>	100.0	Actinobacteria Micrococcales Promicromonosporaceae
OTU.252	3.34	7	7	<i>Promicromonospora thailandica</i>	100.0	Actinobacteria Micrococcales Promicromonosporaceae
OTU.267	4.97	1	1	<i>Paenibacillus pabuli</i> , <i>Paenibacillus tundrae</i> , <i>Paenibacillus taichungensis</i> , <i>Paenibacillus xylanexedens</i> , <i>Paenibacillus xylanilyticus</i>	100.0	Firmicutes Bacilli Bacillales
OTU.277	3.52	3	3	<i>Solibus ginsengiterrae</i>	95.43	Bacteroidetes Sphingobacteria Sphingobacteriales
OTU.290	3.59	1	1	<i>Pantoea spp.</i> , <i>Kluyvera spp.</i> , <i>Klebsiella spp.</i> , <i>Erwinia spp.</i> , <i>Enterobacter spp.</i> , <i>Buttiauxella spp.</i>	100.0	Proteobacteria Gammaproteobacteria Enterobacteriales
OTU.3	2.61	1	1	<i>[Brevibacterium] frigoritolerans</i> , <i>Bacillus sp. LMG 20238</i> , <i>Bacillus coahuilensis m4-4</i> , <i>Bacillus simplex</i>	100.0	Firmicutes Bacilli Bacillales
OTU.319	3.98	1	1	<i>Paenibacillus xinjiangensis</i>	97.25	Firmicutes Bacilli Bacillales

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OTU ID	Fold change	Day	All days	Top BLAST hits	BLAST %ID	Phylum;Class;Order
OTU.335	2.53	1	1	<i>Paenibacillus thailandensis</i>	98.17	<i>Firmicutes Bacilli Bacillales</i>
OTU.346	3.44	3	3	<i>Pseudoduganella violaceinigra</i>	99.54	<i>Proteobacteria Betaproteobacteria Burkholderiales</i>
OTU.3507	2.36	1	1	<i>Bacillus spp.</i>	98.63	<i>Firmicutes Bacilli Bacillales</i>
OTU.3540	2.52	3	3	<i>Flavobacterium terrigena</i>	99.54	<i>Bacteroidetes Flavobacteria Flavobacteriales</i>
OTU.360	2.98	3	3	<i>Flavisolibacter ginsengisoli</i>	95.0	<i>Bacteroidetes Sphingobacteriia Sphingobacteriales</i>
OTU.369	5.05	1	1	<i>Paenibacillus sp. D75, Paenibacillus glycanilyticus</i>	100.0	<i>Firmicutes Bacilli Bacillales</i>
OTU.37	2.68	7	7	<i>Phycicola gilvus, Microterricola viridarii, Frigoribacterium faeni, Frondihabitans sp. RS-15, Frondihabitans australicus</i>	100.0	<i>Actinobacteria Micrococcales Microbacteriaceae</i>
OTU.394	4.06	1	1	<i>Paenibacillus pocheonensis</i>	100.0	<i>Firmicutes Bacilli Bacillales</i>
OTU.4	2.84	7	7, 14	<i>Agromyces ramosus</i>	100.0	<i>Actinobacteria Micrococcales Microbacteriaceae</i>
OTU.4446	3.49	7	7	<i>Catenuloplanes niger, Catenuloplanes castaneus, Catenuloplanes atrovinosus, Catenuloplanes crispus, Catenuloplanes nepalensis, Catenuloplanes japonicus</i>	97.72	<i>Actinobacteria Frankiales Nakamurellaceae</i>
OTU.4743	2.24	1	1	<i>Lysinibacillus fusiformis, Lysinibacillus sphaericus</i>	99.09	<i>Firmicutes Bacilli Bacillales</i>
OTU.48	2.99	1	1, 3	<i>Aeromonas spp.</i>	100.0	<i>Proteobacteria Gammaproteobacteria aaa34a10</i>
OTU.5284	3.56	7	7	<i>Isoptericola nanjingensis, Isoptericola hypogeus, Isoptericola variabilis</i>	98.63	<i>Actinobacteria Micrococcales Promicromonosporaceae</i>
OTU.5603	3.96	1	1	<i>Paenibacillus uliginis</i>	100.0	<i>Firmicutes Bacilli Bacillales</i>
OTU.57	4.39	1	1, 3, 7, 14, 30	<i>Paenibacillus castaneae</i>	98.62	<i>Firmicutes Bacilli Bacillales</i>
OTU.5906	3.16	3	3	<i>Terrimonas sp. M-8</i>	96.8	<i>Bacteroidetes Sphingobacteriia Sphingobacteriales</i>
OTU.62	2.57	7	7	<i>Nakamurella flavida</i>	100.0	<i>Actinobacteria Frankiales Nakamurellaceae</i>
OTU.6203	3.32	3	3	<i>Flavobacterium granuli, Flavobacterium glaciei</i>	100.0	<i>Bacteroidetes Flavobacteria Flavobacteriales</i>
OTU.68	3.74	7	7	<i>Shigella flexneri, Escherichia fergusonii, Escherichia coli, Shigella sonnei</i>	100.0	<i>Proteobacteria Gammaproteobacteria Enterobacteriales</i>
OTU.760	2.89	3	3	<i>Dyadobacter hamtensis</i>	98.63	<i>Bacteroidetes Cytophagia Cytophagales</i>

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OTU ID	Fold change	Day	All days	Top BLAST hits	BLAST %ID	Phylum;Class;Order
OTU.8	2.26	1	1	<i>Bacillus niacini</i>	100.0	<i>Firmicutes Bacilli Bacillales</i>
OTU.843	3.62	1	1	<i>Paenibacillus agarexedens</i>	100.0	<i>Firmicutes Bacilli Bacillales</i>
OTU.9	2.04	1	1	<i>Bacillus megaterium</i> , <i>Bacillus flexus</i>	100.0	<i>Firmicutes Bacilli Bacillales</i>

<sup>a</sup> Maximum observed  $\log_2$  of fold change.

<sup>b</sup> Day of maximum fold change.

<sup>c</sup> All response days.