

Table S4 Fatty acids compositions (percentages) of RD2P54^T, M1R5S18^T and M1R5S59^T and their reference strains

Strains: **1**, strain RD2P54^T; **2**, strain M1R5S18^T; **3**, strain M1R5S59^T; **4**, *L. saliphila* SJ-9^T; **5**, '*L. viscosa*' CGMCC 1.12158^T; **6**, *L. wenzhouensis* YD-1^T; **7**, *L. marina* KCTC 12327^T; **8**, *L. composti* DSM 19790^T; **8**, *L. salinisoli* SJ-92^T. All data are from this study. tr, Traces (<1 %); –, not detected.

Fatty acids	1	2	3	4	5	6	7	8	9
iso-C _{11:0}	4.1	6.1	5.2	5.6	5.4	5.2	7.1	5.9	9.0
iso-C _{11:0} 3OH	-	9.2	10.5	5.2	-	8.9	6.2	4.9	4.0
iso-C _{14:1} E	-	-	-	TR	TR	-	1.2	TR	TR
C _{12:0}	1.8	TR	TR	TR	TR	TR	TR	TR	-
iso-C _{14:0}	1.7	TR	TR	TR	TR	TR	TR	1.9	1.0
C _{14:0}	1.3	TR	TR	TR	TR	TR	TR	TR	TR
iso-C _{13:0} 3OH	2.2	TR	-	TR	-	TR	TR	TR	3.4
iso-C _{15:1} F	2.0	1.3	1.2	1.1	TR	1.4	1.1	1.4	2.5
iso-C _{15:0}	28.4	21.4	25.1	17.3	31.1	24.7	15.9	13.9	18.0
anteiso-C _{15:0}	3.4	2.5	2.5	1.3	1.2	1.9	4.2	2.3	2.8
C _{15:1} ω5c	TR	TR	TR	5.1	TR	TR	5.0	3.5	9.5
iso-C _{16:0}	3.9	4.5	5.0	8.3	2.4	4.9	2.1	12.4	3.0
C _{16:1} ω5c	TR	TR	TR	1.3	TR	TR	1.2	2.4	1.7
C _{16:0}	4.0	2.6	3.1	7.2	7.8	6.5	6.4	2.9	1.3
iso-C _{15:0} 3OH	TR	TR	TR	TR	-	1.2	TR	1.1	1.1
iso-C _{17:0}	5.0	10.3	9.9	3.5	7.9	7.9	7.0	3.1	2.8
C _{18:1} ω9c	-	TR	TR	TR	TR	1.1	TR	TR	TR

C _{18:0}	-	-	-	TR	4.7	3.0	1.4	TR	TR
Summed Feature 1	1.1	TR	TR	TR	TR	TR	TR	TR	TR
Summed Feature 3	4.7	3.1	3.1	4.3	3.2	2.2	3.7	7.3	2.3
Summed Feature 8	4.9	TR	TR	TR	TR	TR	TR	TR	TR
Summed Feature 9	14.3	28.9	24.9	29.4	22.5	20.6	29.7	28.9	24.2

Summed feature 1 consists of iso-C_{15:1} H and/or C_{13:0} 3OH, Summed feature 3 consists of C_{16:1} *ω*7*c* and/or C_{16:1} *ω*6*c*, Summed feature 8 consists of C_{18:1} *ω*7*c* and/or C_{18:1} *ω*6*c*, Summed Feature 9 consists of C_{16:0} 10-methyl and/or iso-C_{17:1} *ω*9*c*.