

Table S1. Comparative percent similarity matrix of the 16S rRNA gene of *C. solincola* KUT1-PS and *C. badium* 18C-PS with their phylogenetically related taxa based on 16S rRNA gene

No.	Strain ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
1	<i>C. solincola</i> KUT1-PS (OQ055347)	-																																										
2	<i>C. badium</i> 18C-PS (OQ055346)	96.3	-																																									
3	<i>C. sp.</i> YK2-01 (AB694931)	96.5	99.5	-																																								
4	<i>C. stagnale</i> PCC 7417 (AF132789)	98.5	97.0	97.3	-																																							
5	<i>C. stagnale</i> PCC 7417 (AJ133163)	98.6	97.1	97.5	99.9	-																																						
6	<i>C. sp.</i> NIES-4074 (AP018269)	96.6	99.5	100.0	97.4	97.6	-																																					
7	<i>C. alatosporum</i> SAG 43.79 (GQ287650)	98.6	96.9	97.3	99.5	99.7	97.3	-																																				
8	<i>C. siamensis</i> SAG 11.82 (GQ389643)	97.0	98.2	98.3	97.2	97.4	98.3	97.1	-																																			
9	<i>C. alatosporum</i> CCALA 988 operon 1 (KF052599)	98.7	97.1	97.2	98.6	98.8	97.2	99.0	97.6	-																																		
10	<i>C. pellucidum</i> CCALA 989 operon 2 (KF052600)	97.8	98.0	98.2	98.2	98.4	98.2	98.5	98.7	98.8	-																																	
11	<i>C. catenatum</i> CCALA 990 operon 1 (KF052601)	98.1	97.9	98.1	98.3	98.5	98.1	98.6	99.0	98.6	99.7	-																																
12	<i>C. catenatum</i> CCALA 990 operon 2 (KF052602)	98.0	97.9	98.0	98.2	98.4	98.0	98.5	98.9	98.5	99.7	99.9	-																															
13	<i>C. catenatum</i> CCALA 991 operon 1 (KF052603)	97.9	98.0	98.1	98.1	98.3	98.1	98.4	98.8	98.6	99.7	99.8	99.9	-																														
14	<i>C. catenatum</i> CCALA 991 operon 2 (KF052604)	97.2	98.0	98.0	97.3	97.5	98.0	97.6	98.7	98.4	99.5	99.6	99.7	99.7	-																													
15	<i>C. pellucidum</i> CCALA 992 operon 1 (KF052605)	97.8	97.9	98.1	98.1	98.3	98.1	98.4	98.6	98.7	99.9	99.7	99.6	99.7	99.4	-																												
16	<i>C. pellucidum</i> CCALA 992 operon 2 (KF052606)	97.8	98.0	98.2	98.2	98.4	98.2	98.5	98.7	98.8	100.0	99.7	99.7	99.7	99.5	99.9	-																											
17	<i>C. moravicum</i> CCALA 993 operon 1 (KF052607)	97.1	98.6	98.8	98.0	98.2	98.8	97.8	98.9	97.6	98.6	98.5	98.4	98.5	98.3	98.5	98.6	-																										
18	<i>C. moravicum</i> CCALA 993 operon 2 (KF052608)	97.1	98.6	98.8	98.0	98.2	98.8	97.8	98.9	97.6	98.6	98.5	98.4	98.5	98.3	98.5	98.6	100.0	-																									
19	<i>C. alatosporum</i> CCALA 994 operon 1 (KF052609)	98.8	97.0	97.1	98.7	98.9	97.2	99.2	97.7	99.8	98.6	98.6	98.5	98.5	98.2	98.5	98.6	97.4	97.4	-																								
20	<i>C. licheniforme</i> CCALA 995 operon 2 (KF052610)	97.7	98.3	98.4	98.4	98.6	98.4	98.7	98.5	98.5	99.4	99.4	99.3	99.4	99.1	99.3	99.4	99.0	99.0	98.3	-																							
21	<i>C. catenatum</i> CCALA 996 operon 1 (KF052611)	97.9	98.0	98.1	98.1	98.3	98.1	98.4	98.8	98.6	99.7	99.8	99.9	100.0	99.7	99.7	99.7	98.5	98.5	98.5	99.4	-																						
22	<i>C. catenatum</i> CCALA 996 operon 2 (KF052612)	97.9	98.0	98.1	98.1	98.3	98.1	98.4	98.8	98.6	99.7	99.8	99.9	100.0	99.7	99.7	99.7	98.5	98.5	98.5	99.4	100.0	-																					
23	<i>C. catenatum</i> CCALA 997 operon 2 (KF052613)	97.9	98.0	98.1	98.1	98.3	98.1	98.4	98.8	98.6	99.7	99.8	99.9	100.0	99.7	99.7	99.7	98.5	98.5	98.5	99.4	100.0	100.0	-																				
24	<i>C. maius</i> CCALA 998 operon 2 (KF052614)	98.7	97.2	97.3	99.6	99.6	97.3	99.1	97.4	99.0	97.9	98.0	97.9	97.8	97.6	97.8	97.9	97.8	97.8	99.1	98.1	97.8	97.8	97.8	-																			
25	<i>C. catenatum</i> CCALA 999 operon 1 (KF052615)	97.4	98.2	98.2	97.5	97.7	98.2	97.8	98.9	98.6	99.7	99.8	99.9	100.0	99.8	99.7	99.7	98.5	98.5	98.5	99.4	100.0	100.0	100.0	97.8	-																		
26	<i>C. badium</i> CCALA 1000 operon 1 (KF052616)	96.8	99.7	99.9	97.6	97.8	99.9	97.5	98.4	97.3	98.3	98.2	98.1	98.2	97.9	98.2	98.3	98.9	98.9	97.2	98.5	98.2	98.2	98.2	97.4	98.2	-																	
27	<i>C. marchicum</i> CCALA 1001 operon 2 (KF052617)	97.3	97.2	97.2	97.5	97.7	97.2	97.8	98.0	97.8	98.4	98.6	98.5	98.5	98.2	98.3	98.4	97.3	97.3	97.8	98.2	98.5	98.5	98.5	97.2	98.5	97.3	-																
28	<i>C. muscicola</i> SAG 44.79 (KF111150)	98.1	98.1	98.2	98.4	98.6	98.3	98.7	98.9	98.9	99.8	99.9	99.8	99.9	99.7	99.7	99.8	98.7	98.7	98.7	99.6	99.9	99.9	99.9	98.1	99.9	98.4	98.5	-															
29	<i>C. muscicola</i> SAG 44.79 operon 2 (KF111151)	98.1	98.0	98.2	98.3	98.5	98.2	98.6	98.9	98.8	99.8	99.9	99.8	99.9	99.7	99.7	99.8	98.6	98.6	98.6	99.6	99.9	99.9	99.9	98.0	99.9	98.3	98.5	100.0															
30	<i>C. muscicola</i> SAG 44.79 (KM019946)	97.4	98.2	98.3	97.7	97.8	98.3	97.9	98.9	98.7	99.7	99.8	99.7	99.8	99.7	99.7	99.7	98.6	98.6	98.5	99.4	99.8	99.8	99.8	97.9	99.9	98.3	98.5	100.0	99.9	-													
31	<i>C. stagnale</i> BEA 0605B (MN845140)	98.7	96.8	97.1	99.3	99.4	97.2	99.7	97.1	99.2	98.3	98.4	98.3	98.2	97.5	98.2	98.3	97.6	97.6	99.4	98.4	98.2	98.2	98.2	99.3	97.7	97.3	97.6	98.4	98.4	97.8	-												
32	<i>C. sp.</i> CHAB2115 (MK209094)	98.7	96.7	96.9	99.5	99.5	97.0	99.1	97.0	98.8	97.9	98.0	97.9	97.8	97.2	97.8	97.9	97.7	97.7	99.0	98.0	97.8	97.8	97.8	99.8	97.4	97.2	97.1	98.0	98.0	97.5	99.4	-											
33	<i>C. stagnale</i> PCC 7417 (CP003642)	98.5	97.3	97.4	99.6	99.7	97.5	99.4	97.6	98.8	98.4	98.5	98.4	98.4	97.8	98.4	98.4	98.3	98.3	99.0	98.6	98.4	98.4	98.4	99.6	98.0	97.8	97.8	98.6	98.5	98.1	99.2	99.6	-										
34	<i>C. licheniforme</i> UTEX B 2014 (KX014846)	98.9	96.9	97.1	99.3	99.3	97.1	99.5	97.3	99.5	98.5	98.6	98.5	98.4	97.7	98.4	98.5	97.5	97.5	99.7	98.5	98.4	98.4	98.4	99.4	98.0	97.3	97.7	98.7	98.6	98.1	99.8	99.5	99.3	-									
35	<i>C. licheniforme</i> UTEX 2014 (AB075983)	98.8	96.5	96.8	99.2	99.2	96.8	99.5	96.9	99.5	98.3	98.4	98.3	98.2	97.6	98.3	98.3	97.2	97.2	99.7	98.3	98.2	98.2	98.2	99.4	97.7	97.0	97.4	98.5	98.4	97.8	99.8	99.5	99.2	100.0	-								
36	<i>C. sp.</i> ACSSI 010 (KY283041)	97.5	97.5	97.8	97.8	97.9	97.9	98.0	98.2	98.3	99.5	99.6	99.5	99.6	98.5	99.4	99.5	98.4	98.4	98.3	99.1	99.6	99.6	99.6	97.6	98.7	98.4	98.4	99.7	99.7	98.7	97.9	97.7	98.0	98.4	98.3	-							
37	<i>C. sp.</i> ACSSI 043 (KY283043)	97.6	97.6	97.9	97.8	98.0	98.0	98.1	98.2	98.4	99.6	99.7	99.6	99.7	98.6	99.5	99.6	98.5	98.5	98.4	99.2	99.7	99.7	99.7	97.7	98.8	98.5	98.5	99.7	99.7	98.8	98.0	97.7	98.1	98.4	98.3	99.9	-						
38	<i>C. skujae</i> ACSSI 112 (KY283076)	96.9	97.6	97.7	97.2	97.5	97.7	97.5	98.4	98.6	99.7	99.8	99.9	100.0	99.4	99.6	99.7	98.5	98.5	98.4	99.4	100.0	100.0	100.0	97.8	99.6	98.1	98.4	99.9	99.9	99.4	97.4	97.1	97.6	98.0	97.7	98.5	98.6	-					
39	<i>C. muscicola</i> ACSSI 140 (KY283077)	97.3	98.1	98.1	97.5	97.7	98.1	97.8	98.8	98.6	99.7	99.8	99.9	100.0	99.8	99.6	99.7	98.5	98.5	98.4	99.4	100.0	100.0	100.0	97.8	100.0	98.1	98.4	99.9	99.9	99.9	97.6	97.4	97.9	98.0	97.7	98.7	98.8	99.6	-				
40	<i>Anabaena</i> sp. 14-VSmolV10 (KT290364)	98.6	97.0	97.2	98.3	98.5	97.2	98.9	97.6	99.1	98.6																																	