

TableS2 ANI

	01_NC_0 03450_AT CC13032	02_NC_0 06958_AT CC13032	03_NC_0 20519_K5 1	04_MB00 1	05_ATCC 21300	06_ATCC 13869	07_ATCC 13870	08_ATCC 14067	09_ATCC 21493	10_SYPS 062	11_SYPS 062-33a	12_ATCC 15168	13_R	14_AS1.2 99	15_B1	16_B253	17_T6-13	18_SCgG 1	19_SCgG 2	20_Z188	21_S9114	22_AS1.5 42	23_MT	24_SYPA 5-5	25_ATCC 21831	26_AR1	YS314	NCTC131 29
01_NC_003450_ATC	---	99.92	99.92	99.95	99.95	98.23	97.29	98.18	98.20	98.17	98.18	98.20	97.68	98.47	98.19	98.14	97.60	97.60	97.60	97.61	97.59	97.61	97.61	97.62	98.63	98.62	84.54	85.04
02_NC_006958_ATC	99.92	---	99.92	99.95	99.93	98.24	97.29	98.18	98.20	98.16	98.18	98.19	97.68	98.46	98.20	98.14	97.60	97.60	97.60	97.61	97.60	97.61	97.61	97.62	98.63	98.62	84.54	85.04
03_NC_020519_K51	99.92	99.92	---	99.94	99.94	98.22	97.28	98.17	98.19	98.16	98.17	98.19	97.67	98.46	98.19	98.13	97.59	97.59	97.59	97.60	97.58	97.60	97.61	97.62	98.62	98.61	84.54	85.03
04_MB001	99.95	99.95	99.94	---	99.96	98.25	97.28	98.18	98.20	98.17	98.18	98.20	97.67	98.48	98.20	98.14	97.60	97.60	97.60	97.61	97.59	97.61	97.61	97.62	98.64	98.63	84.55	85.04
05_ATCC21300	99.97	99.96	99.96	99.97	---	98.27	97.30	98.25	98.22	98.21	98.21	98.25	97.71	98.47	98.20	98.19	97.62	97.62	97.62	97.62	97.61	97.62	97.62	97.61	98.64	98.63	84.50	85.24
06_ATCC13869	98.28	98.28	98.27	98.29	98.30	---	97.30	98.54	98.52	98.52	98.52	98.56	97.68	98.32	98.53	98.48	97.63	97.66	97.66	97.66	97.66	97.65	97.64	97.68	98.36	98.34	84.77	84.97
07_ATCC13870	97.30	97.31	97.29	97.30	97.30	97.28	---	97.36	97.35	97.34	97.35	97.38	97.80	97.35	97.48	97.43	97.75	97.75	97.75	97.75	97.73	97.73	97.74	97.27	97.25	97.25	84.78	85.02
08_ATCC14067	98.19	98.19	98.18	98.19	98.24	98.49	97.35	---	99.89	99.88	99.89	99.92	97.72	98.28	98.78	98.71	97.70	97.72	97.73	97.72	97.70	97.73	97.70	97.76	98.25	98.23	84.61	84.91
09_ATCC21493	98.23	98.23	98.22	98.23	98.24	98.51	97.36	99.92	---	99.89	99.90	99.94	97.73	98.29	98.77	98.73	97.71	97.73	97.73	97.73	97.71	97.72	97.71	97.75	98.28	98.26	84.68	85.00
10_SYPS062	98.19	98.19	98.18	98.19	98.21	98.50	97.32	99.88	99.86	---	99.95	99.91	97.70	98.26	98.75	98.68	97.68	97.69	97.69	97.70	97.69	97.69	97.67	97.73	98.25	98.23	84.63	84.20
11_SYPS062-33a	98.20	98.20	98.19	98.20	98.21	98.50	97.33	99.88	99.85	99.94	---	99.91	97.71	98.27	98.75	98.70	97.71	97.70	97.72	97.70	97.71	97.69	97.74	98.27	98.25	98.25	84.54	84.17
12_ATCC15168	98.20	98.19	98.19	98.20	98.24	98.50	97.36	99.91	99.91	99.90	99.91	---	97.72	98.29	98.79	98.72	97.71	97.73	97.73	97.73	97.71	97.73	97.71	97.77	98.25	98.24	84.58	84.99
13_R	97.69	97.69	97.68	97.68	97.71	97.65	97.79	97.70	97.70	97.68	97.69	97.72	---	97.77	97.86	97.79	98.80	98.83	98.83	98.82	98.80	98.82	98.81	98.83	97.65	97.63	84.85	84.65
14_AS1.299	98.48	98.48	98.47	98.49	98.49	98.28	97.34	98.29	98.28	98.27	98.28	98.31	97.77	---	98.31	98.29	97.66	97.65	97.65	97.65	97.64	97.64	97.64	97.66	98.51	98.50	84.56	84.30
15_B1	98.21	98.22	98.20	98.22	98.21	98.50	97.47	98.79	98.76	98.76	98.76	98.80	97.86	98.32	---	99.97	97.79	97.79	97.80	97.79	97.78	97.79	97.77	97.78	98.26	98.24	84.90	85.89
16_B253	98.14	98.14	98.13	98.14	98.18	98.44	97.43	98.71	98.70	98.67	98.68	98.72	97.79	98.28	99.96	---	97.70	97.73	97.73	97.73	97.72	97.72	97.70	97.77	98.19	98.17	84.91	85.28
17_T6-13	97.61	97.61	97.60	97.61	97.62	97.60	97.75	97.71	97.71	97.68	97.69	97.73	98.81	97.66	97.79	97.72	---	99.98	99.98	99.98	99.96	99.97	99.95	99.97	97.61	97.60	84.88	84.81
18_SCgG1	97.60	97.60	97.59	97.60	97.62	97.62	97.74	97.72	97.72	97.68	97.69	97.73	98.83	97.64	97.79	97.73	99.95	---	99.97	99.98	99.96	99.96	99.94	99.97	97.61	97.59	84.88	84.79
19_SCgG2	97.60	97.60	97.59	97.60	97.62	97.61	97.74	97.72	97.72	97.68	97.69	97.73	98.83	97.64	97.79	97.73	99.95	99.97	---	99.98	99.95	99.96	99.94	99.97	97.61	97.59	84.88	84.79
20_Z188	97.62	97.62	97.61	97.62	97.62	97.64	97.75	97.72	97.72	97.69	97.70	97.73	98.83	97.65	97.78	97.74	99.96	99.98	99.98	---	99.96	99.97	99.95	99.97	97.62	97.61	84.79	84.77
21_S9114	97.60	97.61	97.59	97.60	97.61	97.62	97.73	97.69	97.70	97.67	97.68	97.71	98.81	97.65	97.77	97.73	99.94	99.96	99.96	99.96	---	99.96	99.93	99.96	97.61	97.60	84.80	84.00
22_AS1.542	97.62	97.62	97.61	97.62	97.62	97.61	97.73	97.72	97.72	97.70	97.71	97.74	98.83	97.65	97.79	97.74	99.96	99.97	99.97	99.98	99.96	---	99.95	99.97	97.61	97.60	84.87	84.76
23_MT	97.62	97.62	97.61	97.61	97.62	97.61	97.73	97.71	97.70	97.67	97.68	97.73	98.82	97.65	97.77	97.71	99.93	99.95	99.95	99.95	99.94	99.95	---	99.99	97.61	97.59	84.85	84.73
24_SYPA5-5	97.62	97.63	97.61	97.63	97.61	97.67	97.75	97.75	97.75	97.73	97.73	97.76	98.83	97.66	97.78	97.77	99.97	99.97	99.97	99.97	99.96	99.97	99.99	---	97.64	97.62	84.82	84.63
25_ATCC21831	98.63	98.63	98.62	98.64	98.64	98.31	97.24	98.23	98.25	98.24	98.26	98.25	97.65	98.50	98.25	98.19	97.60	97.61	97.61	97.61	97.60	97.60	97.59	97.63	---	99.95	84.63	84.26
26_AR1	98.62	98.62	98.61	98.63	98.63	98.30	97.24	98.23	98.24	98.23	98.24	98.24	97.63	98.49	98.23	98.17	97.59	97.59	97.59	97.60	97.59	97.59	97.58	97.62	99.94	---	84.51	84.17
YS314	84.55	84.55	84.54	84.55	84.51	84.76	84.73	84.63	84.64	84.63	84.54	84.59	84.85	84.53	84.92	84.92	84.88	84.89	84.88	84.80	84.81	84.88	84.85	84.82	84.63	84.52	---	83.99
NCTC13129	85.00	85.01	85.00	85.00	85.21	85.01	85.01	84.90	85.03	84.18	84.19	84.95	84.65	84.25	85.86	85.23	84.77	84.75	84.75	84.75	84.01	84.74	84.70	84.61	84.21	84.15	83.97	---

TableS3 DDH

01_NC_0034	02_NC_0069	03_NC_0205	04_MB001	05_ATCC21	06_ATCC138	07_ATCC13	08_ATCC140	09_ATCC21	10_SYPS062	11_SYPS062	12_ATCC151	13_R	14_AS1299	15_B1	16_B253	17_16-13	18_ScG1	19_ScG2	20_Z188	21_S9114	22_AS1542	23_MT	24_SYP5A5	25_ATCC21	26_AR1	YS314	NCTC13129		
50_ATCC13	58_ATCC130	19_K51		300	69	870	67	493	-33a	68																			
032	32																												
01_NC_003450_ATCC13032	100	99.7	100	100	94.7	84.7	75.1	84	83.9	83.7	83.7	84.1	78.7	86.4	83.3	83.1	77.3	77.2	77.2	77	77.2	77	77.2	77	77.2	87.9	87.8	20.5	23.8
02_NC_006958_ATCC13032	99.7	100	99.7	99.9	99.9	84.6	75.1	84	83.8	83.6	83.7	84	78.7	86.3	83.2	83.1	77.3	77.1	77.1	77.1	77	77.1	76.9	77.1	87.9	87.8	20.5	23.8	
03_NC_020519_K51	100	99.7	100	99.9	94.7	84.6	75.1	83.9	83.8	83.6	83.7	84	78.7	86.3	83.2	83.1	77.3	77.1	77.1	77.1	77	77.2	76.9	77.1	87.9	87.7	20.6	23.8	
04_MB001	100	99.9	99.9	100	99.9	84.8	75.1	84	83.9	83.7	83.7	84.1	78.7	86.5	83.3	83.1	77.2	77.2	77.2	77.2	77.1	77.3	77	77.2	88.1	87.9	20.5	23.8	
05_ATCC21300	94.7	99.9	94.7	99.9	100	84.7	75.2	84.1	83.9	83.8	84.1	78.8	86.3	83.2	83.1	77.4	77.2	77.2	77.2	77.2	77.3	77	77.2	87.9	87.8	20.2	22.7		
06_ATCC13869	84.7	84.6	84.6	84.8	84.7	100	75.2	87.3	87.2	87.1	87.1	87.4	78.8	85	86.3	86.2	78.4	78.4	78.4	78.4	78.4	78.4	78.3	78.5	85.1	85.3	21.1	23.3	
07_ATCC13870	75.1	75.1	75.1	75.1	75.2	75.2	100	75.8	75.7	75.6	75.6	75.8	79.9	75.7	76.4	76.1	79.9	79.6	79.6	79.7	79.7	79.4	79.6	74.6	74.5	20.9	23		
08_ATCC14067	84	84	83.9	84	84.1	87.3	75.8	100	97.5	97.5	98.7	98.4	79.3	84.6	88.7	88.6	79	79	79	78.9	78.8	79	78.8	79.3	84.4	84.3	20.6	23.9	
09_ATCC21493	83.9	83.8	83.8	83.9	83.9	87.2	75.7	97.5	100	99.6	99.6	92.4	79.2	84.6	88.6	88.5	79	79	79	78.9	78.8	79	78.9	79.2	84.4	84.3	20.4	23.1	
10_SYPS062	83.7	83.6	83.6	83.7	83.8	87.1	75.6	97.5	99.6	100	100	92.7	79.1	84.4	88.5	88.3	78.7	78.7	78.7	78.7	78.7	78.6	79	84.2	84	20.3	22.4		
11_SYPS062-33a	83.7	83.7	83.7	83.7	83.8	87.1	75.6	98.7	99.6	100	100	94.5	79.1	84.4	88.5	88.3	78.7	78.7	78.7	78.8	78.7	78.6	79	84.2	84.1	20.3	22.5		
12_ATCC15168	84.1	84	84	84.1	84.1	87.4	75.8	98.4	92.4	92.7	94.5	100	79.4	84.7	88.8	88.7	79.1	79.1	79.1	79	78.8	79.1	78.9	79.3	84.5	84.4	20.7	24.2	
13_R	78.7	78.7	78.7	78.7	78.8	78.8	79.9	79.3	79.2	79.1	79.1	79.4	100	79.6	80.2	80.1	89.8	89.8	89.8	89.7	89.6	89.8	89.5	89.7	78.6	78.5	21.1	23.7	
14_AS1299	86.4	86.3	86.3	86.5	86.3	85	75.7	84.6	84.6	84.4	84.4	84.7	79.6	100	84.1	84	78.6	78.3	78.3	78.3	78.2	78.4	78.2	78.3	86.7	86.6	20.7	22.7	
15_B1	83.3	83.2	83.2	83.3	83.2	86.3	76.4	88.7	88.6	88.5	88.5	88.8	80.2	84.1	100	97.4	79.4	79.4	79.4	79.3	79.3	79.4	79.2	79.4	83.4	83.3	20.6	23.7	
16_B253	83.1	83.1	83.1	83.1	83.1	86.2	76.1	88.6	88.5	88.3	88.3	88.7	80.1	84	97.4	100	79.1	79.1	79.1	79.1	79	79.1	78.9	79.3	83.1	83	21	24.2	
17_16-13	77.3	77.3	77.3	77.2	77.4	78.4	79.9	79	79	78.7	78.7	79.1	89.8	78.6	78.4	79.1	100	94.2	94.2	100	99.9	100	95.8	99.9	77.5	77.4	20.8	23.2	
18_ScG1	77.2	77.1	77.1	77.2	77.2	78.4	79.6	79	79	78.7	78.7	79.1	89.8	78.3	79.4	79.1	94.2	100	99.5	99.2	94.2	99.8	99.2	77.6	77.4	21.2	24.1		
19_ScG2	77.2	77.1	77.1	77.2	77.2	78.4	79.6	79	79	78.7	78.7	79.1	89.8	78.3	79.4	79.1	94.2	100	99.5	99.2	94.2	99.8	99.2	77.6	77.4	21.2	24.1		
20_Z188	77.2	77.1	77.1	77.2	77.2	78.4	79.7	78.9	78.9	78.7	78.8	79	89.7	78.3	79.3	79.1	100	99.5	99.5	100	99.9	100	95.2	99.9	77.5	77.4	20.4	21.9	
21_S9114	77	77	77	77.1	77.2	78.4	79.7	78.8	78.8	78.7	78.7	78.8	89.6	78.2	79.3	79	99.9	99.2	99.2	99.9	100	99.9	95.4	99.8	77.4	77.3	20.5	21.2	
22_AS1542	77.2	77.1	77.2	77.3	77.3	78.4	79.7	79	79	78.7	78.7	79.1	89.8	78.4	79.4	79.1	100	94.2	94.2	100	99.9	100	95.8	99.9	77.6	77.4	20.8	23.2	
23_MT	77	76.9	76.9	77	77	78.3	79.4	78.8	78.8	78.6	78.9	89.5	78.2	79.2	78.9	95.8	99.8	99.8	95.2	95.4	95.8	100	95.5	77.4	77.3	20.8	23.4		
24_SYP5A5	77.2	77.1	77.1	77.2	77.2	78.5	79.6	79.3	79.2	79	79	79.3	89.7	78.3	79.4	79.3	99.9	99.2	99.2	99.9	99.8	95.5	100	77.7	77.5	20.9	22.4		
25_ATCC21831	87.9	87.9	87.9	88.1	87.9	85.1	74.6	84.4	84.4	84.2	84.5	78.6	86.7	83.4	83.1	77.5	77.6	77.6	77.5	77.4	77.6	77.4	77.7	100	99.1	21	23.2		
26_AR1	87.8	87.8	87.7	87.8	87.8	85.3	74.5	84.3	84.3	84	84.1	84.4	78.5	86.6	83.3	83	77.4	77.4	77.4	77.4	77.3	77.4	77.3	77.5	99.1	100	20.9	23.2	
YS314	20.5	20.5	20.6	20.5	20.2	21.1	20.9	20.6	20.4	20.3	20.3	20.7	21.1	20.7	20.6	21	20.8	21.2	21.2	20.4	20.5	20.8	20.8	20.9	21	20.9	100	24.2	
NCTC13129	23.8	23.8	23.8	23.8	22.7	23.3	23	23.9	23.1	22.4	22.5	24.2	23.7	22.7	23.7	24.2	23.2	24.1	24.1	24.1	21.9	21.2	23.2	23.4	22.4	23.2	23.2	24.2	100

