

SUPPLEMENTARY INFORMATION

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WT water versus WT CMC

Prok	MSA #	Taxonomy	P value	Mean water-treated	Mean CMC-treated	Difference	SE of difference
1	308076	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	0.4787	4.6447	-4.1660	0.5180
2	355746	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	3.4795	0.0701	3.4094	0.4768
3	263977	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	< 0.0001	0.0765	0.0077	0.0689	0.0080
4	214715	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	1.2294	7.5226	-6.2932	0.6699
5	228329	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	3.4245	0.0000	3.4245	0.3908
6	213015	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	0.0206	0.2645	-0.2438	0.0302
7	187151	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0001	0.0758	0.0156	0.0602	0.0087
8	334098	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0002	0.1737	0.0123	0.1614	0.0243
9	1107461	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0002	0.0000	1.8961	-1.8961	0.2994
10	464959	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0003	3.6720	2.1488	1.5232	0.2522
11	315430	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0003	0.0705	0.2028	-0.1324	0.0221
12	423647	Root; k Bacteria; p TM7; c TM7-3; o CW040; f F16; g ; s	0.0004	0.0279	0.0000	0.0279	0.0048
13	183053	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0004	0.0841	0.0000	0.0841	0.0146
14	398839	Root; k Bacteria; p Proteobacteria; c Betaproteobacteria; o Burkholderiales; f Alcaligenaceae; g Sutterella; s	0.0005	0.0171	3.1180	-3.1008	0.5544
15	261177	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0005	4.8424	10.2108	-5.3684	0.9615
16	348875	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0005	0.0241	0.0000	0.0241	0.0043
17	275964	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0006	0.5097	0.1036	0.4060	0.0734
18	176868	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Dehalobacteriaceae; g Dehalobacterium; s	0.0006	0.1667	0.0147	0.1520	0.0276
19	276509	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0006	0.0144	0.2753	-0.2609	0.0476
20	174056	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0011	0.3347	0.1195	0.2153	0.0430
21	265669	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0012	0.2054	0.0696	0.1358	0.0278
22	174791	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0014	0.0245	0.0000	0.0245	0.0051
23	533785	Root; k Bacteria; p Actinobacteria; c Actinobacteria; o Bifidobacteriales; f Bifidobacteriaceae; g Bifidobacterium; s	0.0014	0.6036	0.0735	0.5301	0.1112
24	179037	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0014	0.1835	0.0149	0.1686	0.0354
25	192389	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0014	0.0262	0.3481	-0.3218	0.0677
26	312892	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0015	0.2030	0.0333	0.1697	0.0361
27	272593	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0017	0.0118	0.3740	-0.3622	0.0785
28	269949	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0026	0.0869	0.0187	0.0682	0.0158
29	192222	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Prevotellaceae; g Prevotella; s	0.0027	0.0081	0.6973	-0.6892	0.1608
30	105349	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0028	0.0190	0.0652	-0.0462	0.0109
31	135625	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0028	0.1336	0.0074	0.1261	0.0298
32	216933	Root; k Bacteria; p Firmicutes; c Bacilli; o Turicibacterales; f Turicibacteraceae; g Turicibacter; s	0.0031	3.2292	0.0310	3.1982	0.7658
33	335330	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0034	0.0667	0.0157	0.0510	0.0124
34	317031	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0039	0.1796	0.0156	0.1640	0.0409
35	324954	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0040	0.6858	0.0000	0.6858	0.1717
36	264359	Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0042	0.0155	0.0000	0.0155	0.0039
37	332364	Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0042	0.0000	0.0152	-0.0152	0.0038
38	261664	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0044	0.0159	0.0000	0.0159	0.0041
39	174770	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0044	0.0160	0.0000	0.0160	0.0041
40	261735	Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f Erysipelotrichaceae; g Allobaculum; s	0.0050	1.8909	0.0159	1.8750	0.4889
41	268978	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0051	0.0541	0.0000	0.0541	0.0142
42	269645	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0064	0.0360	0.0000	0.0360	0.0098
43	273364	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0068	0.0129	0.0648	-0.0520	0.0144
44	277364	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0071	0.3480	0.7472	-0.3992	0.1111
45	196965	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0071	0.1462	0.0000	0.1462	0.0408
46	262173	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0082	0.0403	0.0000	0.0403	0.0115
47	278649	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0082	0.0194	0.0000	0.0194	0.0056
48	259667	Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0085	0.2994	0.0623	0.2371	0.0683
49	197956	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0089	0.0756	0.0037	0.0718	0.0209
50	303184	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0094	0.0240	0.0041	0.0199	0.0059
51	274502	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0098	0.0285	0.0042	0.0243	0.0072

52	511340	Root; k	Bacteria; p	Firmicutes; c	Bacilli; o	Lactobacillales; f	Lactobacillaceae; g	Lactobacillus; s	0.0113	0.1988	1.5541	-1.3553	0.4140
53	3092610	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0113	0.0130	0.1219	-0.1088	0.0333
54	175646	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0113	0.0347	0.0041	0.0306	0.0093
55	320912	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0122	0.0000	0.0861	-0.0861	0.0267
56	176977	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0123	1.3625	0.0338	1.3287	0.4129
57	262148	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0127	0.0734	0.2694	-0.1960	0.0613
58	193827	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	; f ; g ; s			0.0129	1.1881	0.1741	1.0139	0.3182
59	373939	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Coriobacteriales; f	Coriobacteriaceae; g	Adlercreutzia; s	0.0137	0.1119	0.0498	0.0621	0.0197
60	433173	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0138	0.0313	0.0000	0.0313	0.0100
61	339549	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0139	0.0612	0.0000	0.0612	0.0195
62	181349	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Coriobacteriales; f	; g ; s		0.0142	0.0549	0.0000	0.0549	0.0176
63	422931	Root; k	Bacteria; p	Firmicutes; c	Bacilli; o	Lactobacillales; f	Lactobacillaceae; g	; s	0.0144	0.0153	0.4406	-0.4252	0.1366
64	183606	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0144	0.0988	0.0000	0.0988	0.0317
65	271846	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0145	0.0075	0.0266	-0.0191	0.0061
66	3319464	Root; k	Bacteria; p	Proteobacteria; c	Epsilonproteobacteria; o	Campylobacteriales; f	Helicobacteraceae; g	Helicobacter; s	0.0147	0.3422	0.1125	0.2298	0.0742
67	184122	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0151	0.0467	0.3409	-0.2942	0.0954
68	197099	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0153	0.0251	0.0000	0.0251	0.0082
69	129715	Root; k	Bacteria; p	Proteobacteria; c	Betaproteobacteria; o	Burkholderiales; f	Oxalobacteraceae; g	Cupriavidus; s	0.0153	0.0000	0.0229	-0.0229	0.0075
70	269125	Root; k	Bacteria; p	Firmicutes; c	Bacilli; o	Lactobacillales; f	Lactobacillaceae; g	; s	0.0157	0.0636	2.0594	-1.9958	0.6532
71	261350	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0160	0.0452	0.0000	0.0452	0.0149
72	244692	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0162	0.0768	0.0078	0.0690	0.0228
73	299261	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0169	0.0000	0.0913	-0.0913	0.0304
74	179681	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0175	0.6526	0.4405	0.2121	0.0711
75	336193	Root; k	Bacteria; p	Proteobacteria; c	Betaproteobacteria; o	Burkholderiales; f	Alcaligenaceae; g	Sutterella; s	0.0185	0.8382	0.2678	0.5704	0.1936
76	228046	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0188	0.0000	0.0514	-0.0514	0.0175
77	187294	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	[Odoribacteraceae]; g	Odoribacter; s	0.0197	0.0931	0.0273	0.0658	0.0227
78	310479	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0203	0.0914	0.0041	0.0873	0.0303
79	188457	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0208	0.0359	0.0989	-0.0630	0.0219
80	261132	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Coriobacteriales; f	; g ; s		0.0219	0.0200	0.0072	0.0128	0.0045
81	233169	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0224	0.0000	0.1254	-0.1254	0.0444
82	237003	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0228	0.1660	0.0000	0.1660	0.0591
83	827376	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0229	0.0000	0.1923	-0.1923	0.0685
84	449353	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Dehalobacteriaceae; g	Dehalobacterium; s	0.0231	0.1283	0.0571	0.0712	0.0254
85	307595	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0241	0.0173	0.1205	-0.1032	0.0372
86	250361	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0246	0.0069	0.1198	-0.1129	0.0409
87	234036	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0257	1.0740	1.6922	-0.6182	0.2262
88	273208	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0265	0.1546	0.0075	0.1471	0.0542
89	261064	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0267	0.0578	0.0077	0.0502	0.0185
90	269653	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0290	0.2611	0.0000	0.2611	0.0983
91	132165	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0296	0.0764	0.0161	0.0603	0.0228
92	173642	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Clostridiaceae; g	; s	0.0318	0.0703	0.0183	0.0520	0.0200
93	209030	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0318	0.0316	0.0037	0.0278	0.0107
94	273776	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	[Ruminococcus]; s	0.0321	0.0926	0.0115	0.0811	0.0313
95	265548	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0323	0.0457	0.0000	0.0457	0.0177
96	176957	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0324	0.0233	0.0035	0.0198	0.0076
97	1110008	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0338	0.0865	0.0237	0.0628	0.0246
98	176118	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0348	0.1589	0.0041	0.1548	0.0610
99	192084	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0349	0.0757	0.0035	0.0722	0.0285
100	233805	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	Rikenellaceae; g	; s	0.0363	0.0232	0.0037	0.0195	0.0078
101	185989	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0368	0.3148	0.0147	0.3000	0.1199
102	259556	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0374	0.0000	0.0225	-0.0225	0.0090
103	232275	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0379	0.3078	0.0839	0.2238	0.0901
104	463794	Root; k	Bacteria; p	Firmicutes; c	Bacilli; o	Lactobacillales; f	Lactobacillaceae; g	; s	0.0391	0.0000	0.0878	-0.0878	0.0357

105	182273	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0400	0.1642	0.0276	0.1365	0.0557
106	167252	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0404	0.7951	0.1528	0.6423	0.2630
107	170131	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0405	0.0000	0.0121	-0.0121	0.0050
108	176582	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_Ruminococcus; s_	0.0406	0.0000	0.0120	-0.0120	0.0049
109	275913	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_[Ruminococcus]; s_gnavus	0.0406	0.0000	0.0120	-0.0120	0.0049
110	197624	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_ ; f_ ; g_ ; s_	0.0407	0.0125	0.0000	0.0125	0.0051
111	178358	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0408	0.0000	0.0113	-0.0113	0.0047
112	470527	Root; k_Bacteria; p_Firmicutes; c_Bacilli; o_Lactobacillales; f_Lactobacillaceae; g_Lactobacillus; s_	0.0408	1.2890	2.2437	-0.9547	0.3919
113	275954	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0409	0.0115	0.0000	0.0115	0.0047
114	303076	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0409	0.0115	0.0000	0.0115	0.0047
115	258423	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0413	0.0000	0.0498	-0.0498	0.0205
116	266343	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0414	0.3225	0.0690	0.2535	0.1045
117	186194	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_Ruminococcus; s_	0.0421	0.0524	0.0072	0.0452	0.0187
118	1137893	Root; k_Bacteria; p_Cyanobacteria; c_Chloroplast; o_Streptophyta; f_ ; g_ ; s_	0.0421	0.0121	0.0000	0.0121	0.0050
119	386765	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_Oscillospira; s_	0.0422	0.0118	0.0000	0.0118	0.0049
120	269107	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_[Ruminococcus]; s_gnavus	0.0428	0.0424	0.0145	0.0280	0.0116
121	271480	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0440	0.1943	0.0157	0.1786	0.0748
122	295075	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0446	0.0308	0.0000	0.0308	0.0129
123	260666	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0471	0.0000	0.0239	-0.0239	0.0102
124	323829	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0476	0.4825	0.0948	0.3878	0.1659
125	194878	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0497	0.0282	0.0000	0.0282	0.0122
126	264941	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_Ruminococcus; s_	0.0499	0.0948	0.0217	0.0731	0.0317

WT water versus WT P80

Prok_MSA#	Taxonomy	P value	Mean water-treated	Mean P80-treated	Difference	SE of difference
1	1107461 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	< 0.0001	0.0000	1.1741	-1.1741	0.1426
2	105349 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	< 0.0001	0.0190	0.3149	-0.2959	0.0358
3	276643 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	< 0.0001	0.0000	0.0858	-0.0858	0.0048
4	863612 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	< 0.0001	0.0000	0.1018	-0.1018	0.0075
5	214715 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	1.2294	2.8614	-1.6319	0.1814
6	187151 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	< 0.0001	0.0758	0.0000	0.0758	0.0087
7	228329 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0001	3.4245	0.0000	3.4245	0.4431
8	355746 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0005	3.4795	0.1496	3.3298	0.5397
9	838703 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0005	0.0041	0.1198	-0.1157	0.0193
10	258423 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0010	0.0000	0.0746	-0.0746	0.0139
11	305880 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0012	0.1045	0.0113	0.0933	0.0179
12	173909 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0012	0.0000	0.0765	-0.0765	0.0147
13	260752 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0014	0.0075	0.0462	-0.0387	0.0076
14	303184 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0014	0.0240	0.0000	0.0240	0.0047
15	295564 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0015	2.6640	1.3602	1.3038	0.2573
16	179681 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0015	0.6526	0.1641	0.4885	0.0966
17	348875 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0018	0.0241	0.0000	0.0241	0.0049
18	264023 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0021	0.0282	0.0000	0.0282	0.0059
19	308076 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0030	0.4787	3.7440	-3.2653	0.7365
20	268927 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0030	0.0035	0.0706	-0.0671	0.0152
21	308617 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Rikenellaceae; g ; s	0.0036	0.0235	0.3618	-0.3383	0.0788
22	174791 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0040	0.0245	0.0000	0.0245	0.0058
23	312892 Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0051	0.2030	0.0318	0.1712	0.0426
24	262752 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0052	0.1041	0.0220	0.0820	0.0205
25	327284 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0053	0.0395	0.0000	0.0395	0.0099
26	334098 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0054	0.1737	0.0673	0.1065	0.0269
27	1110008 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0055	0.0865	0.0000	0.0865	0.0219
28	827376 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0063	0.0000	0.1133	-0.1133	0.0295
29	335508 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0070	0.9007	0.1864	0.7143	0.1898
30	214655 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0074	0.1145	0.4113	-0.2969	0.0796
31	261500 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0074	0.2127	0.0217	0.1910	0.0512
32	175646 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0082	0.0347	0.0000	0.0347	0.0095
33	179037 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0105	0.1835	0.0382	0.1454	0.0420
34	174770 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0106	0.0160	0.0000	0.0160	0.0046
35	303454 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0106	0.0160	0.0000	0.0160	0.0046
36	176868 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Dehalobacteriaceae; g Dehalobacterium; s	0.0113	0.1667	0.0370	0.1297	0.0381
37	373939 Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f Coriobacteriaceae; g Adlercreutzia; s	0.0120	0.1119	0.0500	0.0619	0.0184
38	259667 Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0126	0.2994	0.0389	0.2604	0.0782
39	317031 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0130	0.1796	0.0247	0.1548	0.0468
40	184122 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0132	0.0467	0.4966	-0.4499	0.1366
41	233991 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0133	0.0000	0.1870	-0.1870	0.0568
42	265669 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0135	0.2054	0.0734	0.1320	0.0403
43	250361 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0138	0.0069	0.1521	-0.1452	0.0445
44	827522 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0147	0.0463	0.1815	-0.1351	0.0420
45	658370 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0153	0.0344	0.0000	0.0344	0.0108
46	263977 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0161	0.0765	0.0408	0.0358	0.0113
47	1844565 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0162	0.0000	0.0698	-0.0698	0.0222
48	544392 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f ; g ; s	0.0173	0.0196	0.0000	0.0196	0.0063
49	269949 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0178	0.0869	0.0339	0.0530	0.0172
50	191573 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0186	0.2728	2.9144	-2.6416	0.8660

51	265563	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0186	0.0000	0.0193	-0.0193	0.0063
52	182033	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Oscillospira; s	0.0188	0.0589	0.0042	0.0547	0.0180
53	321484	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0189	0.0082	0.0360	-0.0278	0.0092
54	174056	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0195	0.3347	0.1716	0.1632	0.0541
55	271131	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0198	0.0149	0.0414	-0.0264	0.0088
56	258910	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0198	0.7618	0.3412	0.4206	0.1400
57	177590	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0199	0.0000	0.0153	-0.0153	0.0051
58	331737	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0205	0.0447	0.0000	0.0447	0.0150
59	162576	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0206	0.1215	0.0389	0.0826	0.0277
60	183053	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0208	0.0841	0.0209	0.0632	0.0213
61	262944	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0220	0.0440	0.0082	0.0358	0.0122
62	320912	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0224	0.0000	0.0937	-0.0937	0.0321
63	188266	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0229	0.0000	0.0437	-0.0437	0.0150
64	173245	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0236	0.0000	0.0299	-0.0299	0.0104
65	275895	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0246	0.0000	0.0207	-0.0207	0.0072
66	267216	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0249	0.0039	0.0556	-0.0517	0.0182
67	265730	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0250	0.0351	0.0000	0.0351	0.0123
68	1095264	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	; g	; s	0.0251	0.0000	0.0173	-0.0173	0.0061
69	206324	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0258	0.0122	0.0632	-0.0510	0.0181
70	279026	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	[Ruminococcus]; s gnavus	0.0264	0.0035	0.0936	-0.0901	0.0321
71	195445	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0265	0.0035	0.0297	-0.0262	0.0094
72	176977	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0266	1.3625	0.0506	1.3119	0.4687
73	132165	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0278	0.0764	0.0082	0.0681	0.0246
74	339549	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0279	0.0612	0.0000	0.0612	0.0221
75	228046	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0285	0.0000	0.0362	-0.0362	0.0132
76	264629	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0287	0.1267	0.0128	0.1139	0.0415
77	183606	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0287	0.0988	0.0000	0.0988	0.0360
78	261132	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Coriobacteriales; f	; g	; s	0.0289	0.0200	0.0082	0.0118	0.0043
79	270571	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0293	0.1127	0.0144	0.0983	0.0360
80	269103	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0294	0.0000	0.4875	-0.4875	0.1786
81	197099	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0302	0.0251	0.0000	0.0251	0.0093
82	261350	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0315	0.0452	0.0000	0.0452	0.0169
83	209907	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0325	0.6635	0.0000	0.6635	0.2496
84	449353	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Dehalobacteriaceae; g	Dehalobacterium; s	0.0337	0.1283	0.0509	0.0774	0.0294
85	102480	Root; k	Bacteria; p	Proteobacteria; c	Epsilonproteobacteria; o	Campylobacteriales; f	Helicobacteraceae; g	Helicobacter; s	0.0338	0.2067	1.1921	-0.9853	0.3744
86	190673	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0345	0.0389	0.0084	0.0305	0.0116
87	180264	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0364	0.0000	0.0178	-0.0178	0.0069
88	188457	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0369	0.0359	0.0048	0.0311	0.0121
89	186194	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0384	0.0524	0.0000	0.0524	0.0206
90	273208	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0387	0.1546	0.0000	0.1546	0.0609
91	610842	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0402	0.0035	0.0375	-0.0341	0.0136
92	258700	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Oscillospira; s	0.0414	0.0538	0.0130	0.0407	0.0163
93	237003	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	; s	0.0423	0.1660	0.0000	0.1660	0.0670
94	263138	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0424	0.0198	0.1275	-0.1077	0.0435
95	268696	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0432	0.0000	0.0343	-0.0343	0.0139
96	193509	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	Dorea; s	0.0436	0.0000	0.0293	-0.0293	0.0119
97	231318	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0447	0.0587	0.0096	0.0492	0.0201
98	833795	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0452	0.0288	0.0000	0.0288	0.0118
99	276509	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0461	0.0144	0.1134	-0.0990	0.0409
100	429917	Root; k	Bacteria; p	Bacteroidetes; c	Bacteroidia; o	Bacteroidales; f	S24-7; g	; s	0.0465	0.0000	0.0402	-0.0402	0.0167
101	344108	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Lachnospiraceae; g	; s	0.0491	0.0000	0.0355	-0.0355	0.0149
102	350256	Root; k	Bacteria; p	Firmicutes; c	Clostridia; o	Clostridiales; f	Ruminococcaceae; g	Ruminococcus; s	0.0498	0.0538	0.0048	0.0490	0.0207

IL10^{-/-} water versus IL10^{-/-} CMC

Prok	MSA #	Taxonomy	P value	Mean water-treated	Mean CMC-treated	Difference	SE of difference
1	102627	Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f [Coprobacillaceae]; g ; s	< 0.0001	0.0037	2.0297	-2.0260	0.3492
2	4086959	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	< 0.0001	0.0000	0.1623	-0.1623	0.0262
3	358939	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	< 0.0001	0.0000	0.0839	-0.0839	0.0066
4	431900	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	1.5851	0.0886	1.4965	0.2109
5	578016	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Porphyromonadaceae; g Parabacteroides; s distasonis	< 0.0001	0.0000	1.1215	-1.1215	0.0697
6	336193	Root; k Bacteria; p Proteobacteria; c Betaproteobacteria; o Burkholderiales; f Alcaligenaceae; g Sutterella; s	< 0.0001	0.1154	2.0919	-1.9765	0.2116
7	264696	Root; k Bacteria; p Verrucomicrobia; c Verrucomicrobiae; o Verrucomicrobiales; f Verrucomicrobiaceae; g Akkermansia; s muciniphila	0.0001	0.7131	25.9677	-25.2546	4.5886
8	178954	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g Blautia; s	0.0002	0.0000	0.0958	-0.0958	0.0183
9	169077	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g [Ruminococcus]; s	0.0002	0.0000	0.0414	-0.0414	0.0081
10	195123	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Porphyromonadaceae; g Parabacteroides; s	0.0003	0.0000	0.0111	-0.0111	0.0022
11	273707	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0004	0.0000	0.0213	-0.0213	0.0044
12	1537819	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g [Ruminococcus]; s	0.0004	0.0000	0.0201	-0.0201	0.0042
13	179157	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g Parabacteroides; s distasonis	0.0004	0.0000	0.0101	-0.0101	0.0021
14	523589	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Clostridiaceae; g Clostridium; s neonatale	0.0005	0.0018	5.8321	-5.8303	1.2332
15	194225	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0005	0.5578	0.0028	0.5550	0.1178
16	214715	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0006	0.6475	6.9231	-6.2756	1.3574
17	199455	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g Blautia; s	0.0008	0.0037	0.5725	-0.5688	0.1270
18	312322	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0009	0.5130	0.0038	0.5092	0.1160
19	331117	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0011	0.1252	0.0000	0.1252	0.0292
20	315430	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0012	0.2591	0.0225	0.2366	0.0563
21	231755	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Rikenellaceae; g ; s	0.0014	0.0018	0.3065	-0.3047	0.0735
22	3709990	Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f Erysipelotrichaceae; g [Eubacterium]; s dolichum	0.0014	0.0014	0.2365	-0.2351	0.0570
23	261551	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0020	0.0743	0.0000	0.0743	0.0189
24	271846	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0020	0.3257	0.0064	0.3193	0.0814
25	131391	Root; k Bacteria; p Actinobacteria; c Actinobacteria; o Bifidobacteriales; f Bifidobacteriaceae; g Bifidobacterium; s pseudolongum	0.0021	0.0040	0.0856	-0.0816	0.0210
26	299390	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g Blautia; s producta	0.0022	0.0000	0.2641	-0.2641	0.0682
27	533785	Root; k Bacteria; p Actinobacteria; c Actinobacteria; o Bifidobacteriales; f Bifidobacteriaceae; g Bifidobacterium; s	0.0023	0.0475	2.0812	-2.0337	0.5263
28	258910	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0023	0.9708	0.0289	0.9420	0.2451
29	328055	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0031	0.0000	0.0443	-0.0443	0.0120
30	351020	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Clostridiaceae; g ; s	0.0032	0.0000	0.0580	-0.0580	0.0158
31	1846390	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0038	0.0000	0.0216	-0.0216	0.0060
32	102480	Root; k Bacteria; p Proteobacteria; c Epsilonproteobacteria; o Campylobacteriales; f Helicobacteriaceae; g Helicobacter; s	0.0041	0.0058	0.2741	-0.2683	0.0760
33	341913	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0045	0.4885	0.1049	0.3837	0.1102
34	234273	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0046	0.1025	0.6469	-0.5443	0.1567
35	349804	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Peptostreptococcaceae; g ; s	0.0051	0.0000	0.1339	-0.1339	0.0392
36	174004	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0051	0.2475	0.0000	0.2475	0.0725
37	275974	Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f Coriobacteriaceae; g Adlercreutzia; s	0.0052	0.1785	0.0000	0.1785	0.0524
38	183162	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0061	0.0000	0.3088	-0.3088	0.0931
39	260518	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0067	0.0000	0.0890	-0.0890	0.0272
40	272850	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0075	0.9488	0.0000	0.9488	0.2954
41	187078	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0075	0.0019	0.0266	-0.0247	0.0077
42	174056	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0079	0.1701	0.0032	0.1669	0.0524
43	170335	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f [Odoribacteriaceae]; g Odoribacter; s	0.0090	0.0915	0.0000	0.0915	0.0294
44	52947	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Clostridiaceae; g Clostridium; s perfringens	0.0109	0.0055	4.8035	-4.7979	1.5957
45	197043	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0111	0.1228	0.0000	0.1228	0.0410
46	181603	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Anaerotruncus; s	0.0120	0.0018	0.5301	-0.5283	0.1788
47	192122	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0125	0.0169	0.0000	0.0169	0.0057
48	315982	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Clostridiaceae; g Clostridium; s perfringens	0.0127	0.0000	0.4411	-0.4411	0.1507
49	178331	Root; k Bacteria; p Verrucomicrobia; c Verrucomicrobiae; o Verrucomicrobiales; f Verrucomicrobiaceae; g Akkermansia; s muciniphila	0.0130	0.0000	0.0060	-0.0060	0.0021
50	312892	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0130	0.0604	0.0000	0.0604	0.0207
51	193202	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g Blautia; s producta	0.0131	0.0000	0.0070	-0.0070	0.0024
52	320169	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0131	0.0000	0.0070	-0.0070	0.0024
53	323583	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0132	0.0389	0.0000	0.0389	0.0134

54	210110	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g Blautia; s	0.0136	0.0000	0.0073	-0.0073	0.0025
55	264023	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0137	0.0397	0.0000	0.0397	0.0138
56	262541	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0137	0.1680	0.0000	0.1680	0.0582
57	337909	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f ; g ; s	0.0144	0.0000	0.0289	-0.0289	0.0101
58	328955	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f ; g ; s	0.0144	0.0000	0.0096	-0.0096	0.0034
59	194151	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Peptostreptococcaceae; g ; s	0.0144	0.0000	0.0096	-0.0096	0.0034
60	828483	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Clostridiaceae; g ; s	0.0144	0.0000	0.0771	-0.0771	0.0269
61	350832	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f ; g ; s	0.0144	0.0000	0.0385	-0.0385	0.0135
62	105349	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0149	0.1363	0.0000	0.1363	0.0480
63	306288	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0152	0.0000	0.0069	-0.0069	0.0024
64	14202	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Peptostreptococcaceae; g ; s	0.0152	0.0000	0.0069	-0.0069	0.0024
65	185743	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0152	0.0027	0.0221	-0.0193	0.0068
66	180869	Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f [Coprobacillaceae]; g ; s	0.0161	0.0000	0.1101	-0.1101	0.0393
67	2420243	Root; k Bacteria; p Proteobacteria; c Alphaproteobacteria; o Rickettsiales; f mitochondria; g ; s	0.0164	0.0110	0.0423	-0.0313	0.0112
68	332364	Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0169	0.1388	0.0286	0.1102	0.0398
69	277364	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0172	1.3190	0.3800	0.9389	0.3400
70	3195854	Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0192	0.0000	0.0315	-0.0315	0.0116
71	195931	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f ; g ; s	0.0201	0.0014	0.0251	-0.0237	0.0088
72	312440	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0222	0.2076	0.0343	0.1734	0.0661
73	191259	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0229	0.3919	0.0000	0.3919	0.1502
74	264629	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0236	0.0609	0.0000	0.0609	0.0235
75	190026	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Rikenellaceae; g AF12; s	0.0238	0.0000	0.0178	-0.0178	0.0069
76	261500	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0239	0.0330	0.0000	0.0330	0.0128
77	308617	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Rikenellaceae; g ; s	0.0245	0.5957	5.5296	-4.9339	1.9190
78	273776	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g [Ruminococcus]; s gnavus	0.0262	0.0407	0.0000	0.0407	0.0161
79	91169	Root; k Bacteria; p Proteobacteria; c Gammaproteobacteria; o Pasteurellales; f Pasteurellaceae; g Aggregatibacter; s pneumotropica	0.0263	0.0000	0.0276	-0.0276	0.0109
80	185614	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0265	0.0860	0.0000	0.0860	0.0340
81	464959	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0273	1.8699	0.5543	1.3157	0.5238
82	190673	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0286	0.0390	0.0000	0.0390	0.0157
83	363731	Root; k Bacteria; p Verrucomicrobia; c Verrucomicrobiae; o Verrucomicrobiales; f Verrucomicrobiaceae; g Akkermansia; s muciniphila	0.0290	0.0000	0.0116	-0.0116	0.0047
84	264941	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0292	0.0304	0.0000	0.0304	0.0123
85	264774	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0293	0.0522	0.0000	0.0522	0.0211
86	263508	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g [Ruminococcus]; s	0.0299	0.0528	0.0038	0.0490	0.0199
87	166869	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0307	0.0000	0.0311	-0.0311	0.0127
88	417981	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Clostridiaceae; g ; s	0.0310	0.0515	0.0000	0.0515	0.0211
89	195691	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0324	0.0271	0.0000	0.0271	0.0112
90	261177	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0329	8.0403	2.1484	5.8919	2.4449
91	209907	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0330	0.6718	0.0000	0.6718	0.2789
92	263500	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0332	0.1463	0.0038	0.1425	0.0593
93	177269	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0342	0.0246	0.0000	0.0246	0.0103
94	262399	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0343	0.0299	0.0000	0.0299	0.0125
95	186194	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0343	0.0175	0.0000	0.0175	0.0073
96	170502	Root; k Bacteria; p Proteobacteria; c Deltaproteobacteria; o Desulfobivibrionales; f Desulfobivibrionaceae; g Desulfobivibrio; s C21 c20	0.0346	3.4197	0.0000	3.4197	1.4348
97	211743	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0356	0.0078	0.0983	-0.0904	0.0382
98	231096	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Rikenellaceae; g ; s	0.0363	0.0352	0.0000	0.0352	0.0149
99	213015	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0374	0.0265	0.2607	-0.2343	0.1001
100	189531	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0377	0.0666	0.0096	0.0570	0.0244
101	269125	Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0381	14.6186	3.7438	10.8747	4.6670
102	103941	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Clostridiaceae; g Clostridium; s	0.0391	0.0019	0.0655	-0.0636	0.0274
103	193240	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0391	0.0000	0.0368	-0.0368	0.0159
104	575506	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Peptostreptococcaceae; g ; s	0.0391	0.0000	0.0180	-0.0180	0.0078
105	1142110	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Peptostreptococcaceae; g ; s	0.0395	0.0000	0.3264	-0.3264	0.1413
106	270646	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0397	0.2529	0.0000	0.2529	0.1096
107	197956	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0409	0.0170	0.0000	0.0170	0.0074
108	183832	Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0418	0.1062	0.0000	0.1062	0.0466
109	306914	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0424	0.1558	0.0000	0.1558	0.0686

110	342786	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0439	0.2279	0.0000	0.2279	0.1012
111	14108	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_ ; f_ ; g_ ; s_	0.0447	0.0153	0.5869	-0.5716	0.2551
112	693043	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_ ; s_	0.0451	0.0464	0.0000	0.0464	0.0207
113	260346	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_Coproccoccus; s_	0.0468	0.1590	0.0000	0.1590	0.0718
114	262938	Root; k_Bacteria; p_Firmicutes; c_Erysipelotrichi; o_Erysipelotrichales; f_Erysipelotrichaceae; g_Allobaculum; s_	0.0472	1.4951	0.0096	1.4855	0.6719
115	305880	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0478	0.1588	0.0188	0.1400	0.0635
116	209028	Root; k_Bacteria; p_Bacteroidetes; c_Bacteroidia; o_Bacteroidales; f_S24-7; g_ ; s_	0.0485	0.0191	0.0762	-0.0571	0.0260
117	340517	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0488	0.0604	0.0000	0.0604	0.0275
118	193672	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Peptostreptococcaceae; g_ ; s_	0.0496	0.0014	0.0822	-0.0808	0.0370

IL10^{-/-} water versus IL10^{-/-} P80

Prok_MSA #	Taxonomy	P value	Mean water-treated	Mean P80-treated	Difference	SE of difference
1	181719 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Bacteroidaceae; g Bacteroides; s	< 0.0001	0.0176	18.1772	-18.1596	1.6702
2	180731 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Porphyromonadaceae; g Parabacteroides; s	< 0.0001	0.0014	3.3249	-3.3235	0.5590
3	188889 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Prevotellaceae; g Prevotella; s	< 0.0001	0.0014	1.8172	-1.8158	0.2413
4	431900 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	1.5851	0.3220	1.2632	0.2014
5	215317 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	< 0.0001	0.0000	1.2048	-1.2048	0.1919
6	273707 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0001	0.0000	0.0156	-0.0156	0.0028
7	260529 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0002	0.0000	0.2451	-0.2451	0.0484
8	232037 Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0002	0.0041	0.1913	-0.1872	0.0372
9	194225 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0002	0.5578	0.0294	0.5284	0.1056
10	170185 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0003	0.0000	0.0180	-0.0180	0.0037
11	273084 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0005	0.0075	0.3629	-0.3554	0.0767
12	276837 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0006	0.0000	0.0307	-0.0307	0.0068
13	271846 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0006	0.3257	0.0025	0.3232	0.0724
14	261551 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0007	0.0743	0.0000	0.0743	0.0168
15	234939 Root; k Bacteria; p Proteobacteria; c Deltaproteobacteria; o Desulfobivibrionales; f Desulfobivibrionaceae; g Bilophila; s	0.0007	0.0084	0.1043	-0.0959	0.0219
16	1110008 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0008	0.0158	0.1528	-0.1371	0.0314
17	277364 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0008	1.3190	0.0466	1.2724	0.2919
18	175646 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0008	0.0354	0.0000	0.0354	0.0082
19	181603 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Anaerotruncus; s	0.0010	0.0018	0.0856	-0.0838	0.0198
20	193756 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0015	0.0055	0.3441	-0.3387	0.0844
21	258283 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0020	0.0000	0.0219	-0.0219	0.0057
22	269645 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0020	0.0074	0.1307	-0.1233	0.0321
23	261177 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0027	8.0403	0.2981	7.7422	2.0963
24	274297 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0028	0.0143	0.1117	-0.0975	0.0266
25	264941 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0028	0.0304	0.1302	-0.0998	0.0272
26	191445 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0034	0.0000	0.0552	-0.0552	0.0154
27	351309 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0034	0.0439	0.8094	-0.7656	0.2143
28	258910 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0035	0.9708	0.1787	0.7921	0.2224
29	348350 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0035	0.2397	0.0034	0.2363	0.0665
30	180065 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0037	0.0021	0.1038	-0.1017	0.0288
31	170335 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f [Odoribacteraceae]; g Odoribacter; s	0.0039	0.0915	0.0000	0.0915	0.0262
32	3709990 Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f Erysipelotrichaceae; g [Eubacterium]; s dolichum	0.0039	0.0014	0.0214	-0.0200	0.0057
33	272850 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0040	0.9488	0.0314	0.9174	0.2631
34	310479 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0043	0.0000	0.0240	-0.0240	0.0069
35	262375 Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f Erysipelotrichaceae; g ; s	0.0047	0.0040	0.0473	-0.0433	0.0127
36	353026 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0048	0.1148	3.6329	-3.5181	1.0379
37	332364 Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0049	0.1388	0.0161	0.1227	0.0363
38	193859 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Bacteroidaceae; g Bacteroides; s	0.0051	0.0000	0.0144	-0.0144	0.0043
39	183089 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f ; g ; s	0.0051	0.0029	0.1486	-0.1457	0.0434
40	331737 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0054	0.0042	0.1014	-0.0972	0.0291
41	464959 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0060	1.8699	0.3372	1.5327	0.4672
42	264023 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0064	0.0397	0.0000	0.0397	0.0122
43	323829 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0064	0.1004	1.0185	-0.9181	0.2830
44	315430 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0065	0.2591	0.0776	0.1815	0.0561
45	463794 Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0072	0.2750	0.0364	0.2386	0.0749
46	267024 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0072	0.0608	1.9126	-1.8518	0.5822
47	244692 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0079	0.0286	0.8760	-0.8474	0.2703
48	102480 Root; k Bacteria; p Proteobacteria; c Epsilonproteobacteria; o Campylobacteriales; f Helicobacteraceae; g Helicobacter; s	0.0083	0.0058	1.5754	-1.5696	0.5048
49	272080 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0083	0.0000	0.1024	-0.1024	0.0329
50	187028 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0084	0.0912	0.0000	0.0912	0.0294
51	341913 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0085	0.4885	0.1606	0.3279	0.1060
52	269037 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0088	0.0000	0.0280	-0.0280	0.0091
53	275974 Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f Coriobacteriaceae; g Adlercreutzia; s	0.0094	0.1785	0.0281	0.1504	0.0494

54	207284	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0101	0.0743	0.0113	0.0630	0.0209
55	189531	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0102	0.0666	0.0019	0.0647	0.0215
56	269125	Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0107	14.6186	2.1484	12.4701	4.1909
57	442151	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0108	0.0095	0.0649	-0.0554	0.0186
58	265669	Root; k Bacteria; p Bacteroidetes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0109	0.0632	0.3731	-0.3098	0.1044
59	176357	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0115	0.0069	0.1265	-0.1196	0.0407
60	339329	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0116	0.0055	0.1836	-0.1781	0.0607
61	267783	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0119	0.0000	0.0249	-0.0249	0.0085
62	318343	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0119	0.0000	0.0126	-0.0126	0.0043
63	174056	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0120	0.1701	0.0313	0.1388	0.0476
64	191259	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0121	0.3919	0.0025	0.3894	0.1336
65	336193	Root; k Bacteria; p Proteobacteria; c Betaproteobacteria; o Burkholderiales; f Alcaligenaceae; g Sutterella; s	0.0124	0.1154	0.0000	0.1154	0.0397
66	192598	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0124	0.0000	0.0253	-0.0253	0.0087
67	196578	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0124	0.0140	0.2597	-0.2457	0.0847
68	312892	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0132	0.0604	0.0061	0.0542	0.0189
69	308076	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0139	1.9941	6.3120	-4.3178	1.5203
70	317633	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0141	0.0020	0.0709	-0.0689	0.0243
71	292091	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0144	0.0000	0.1077	-0.1077	0.0382
72	337099	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0146	0.0126	0.1739	-0.1614	0.0573
73	187959	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0151	0.1081	0.0033	0.1049	0.0375
74	308617	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Rikenellaceae; g ; s	0.0151	0.5957	2.6570	-2.0613	0.7371
75	189585	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0160	0.0000	0.0554	-0.0554	0.0200
76	258453	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0161	0.0035	0.0777	-0.0742	0.0269
77	269532	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0162	0.0043	0.0625	-0.0582	0.0211
78	422931	Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0165	0.0193	0.3721	-0.3529	0.1283
79	258700	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0167	0.0057	0.0376	-0.0319	0.0116
80	264696	Root; k Bacteria; p Verrucomicrobia; c Verrucomicrobiae; o Verrucomicrobiales; f Verrucomicrobiaceae; g Akkermansia; s muciniphila	0.0175	0.7131	8.2637	-7.5506	2.7754
81	209907	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0179	0.6718	0.0000	0.6718	0.2481
82	263546	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0182	0.1324	0.7111	-0.5787	0.2143
83	1684219	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0183	0.0000	0.0447	-0.0447	0.0166
84	177269	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0187	0.0246	0.0000	0.0246	0.0092
85	262399	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0187	0.0299	0.0000	0.0299	0.0111
86	174438	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0188	0.0310	0.0000	0.0310	0.0115
87	258598	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0188	0.0000	0.0932	-0.0932	0.0348
88	185614	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0200	0.0860	0.0056	0.0804	0.0304
89	308351	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0203	0.0060	0.0469	-0.0409	0.0155
90	191814	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0221	0.0682	0.4894	-0.4212	0.1621
91	270646	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0223	0.2529	0.0000	0.2529	0.0975
92	264629	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0234	0.0609	0.0061	0.0548	0.0213
93	269070	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0252	0.0174	0.0727	-0.0553	0.0219
94	318571	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0264	0.1155	0.0084	0.1070	0.0428
95	289627	Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0265	0.0211	0.0000	0.0211	0.0084
96	262938	Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f Erysipelotrichaceae; g Allobaculum; s	0.0271	1.4951	0.0069	1.4882	0.5977
97	306914	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0287	0.1558	0.0056	0.1502	0.0611
98	263687	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0294	0.0155	0.0819	-0.0664	0.0271
99	185743	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0301	0.0027	0.0429	-0.0401	0.0165
100	350256	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0317	0.0124	0.0803	-0.0680	0.0282
101	319702	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0319	0.0000	0.0195	-0.0195	0.0081
102	2045	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Bacteroidaceae; g Bacteroides; s	0.0320	0.0000	0.0067	-0.0067	0.0028
103	198560	Root; k Bacteria; p Proteobacteria; c Deltaproteobacteria; o Desulfobivibrionales; f Desulfobivibrionaceae; g Bilophila; s	0.0320	0.0000	0.0067	-0.0067	0.0028
104	261887	Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0320	0.0000	0.0067	-0.0067	0.0028
105	133843	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0320	0.0000	0.0134	-0.0134	0.0056
106	312440	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0320	0.2076	0.0614	0.1462	0.0609
107	262102	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0320	0.0000	0.0063	-0.0063	0.0026
108	319379	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0320	0.0000	0.0191	-0.0191	0.0080
109	190913	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Bacteroidaceae; g Bacteroides; s	0.0320	0.0000	0.0143	-0.0143	0.0060

110	227967	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f ; g ; s	0.0323	0.0000	0.0065	-0.0065	0.0027
111	189406	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0323	0.0000	0.0065	-0.0065	0.0027
112	258899	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0324	0.0000	0.0140	-0.0140	0.0058
113	266935	Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0328	0.0000	0.0071	-0.0071	0.0030
114	170502	Root; k Bacteria; p Proteobacteria; c Deltaproteobacteria; o Desulfovibrionales; f Desulfovibrionaceae; g Desulfovibrio; s C21 c20	0.0329	3.4197	0.3690	3.0507	1.2785
115	184154	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0332	0.0496	0.0000	0.0496	0.0208
116	263508	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g [Ruminococcus]; s	0.0335	0.0528	0.2640	-0.2113	0.0889
117	178331	Root; k Bacteria; p Verrucomicrobia; c Verrucomicrobiae; o Verrucomicrobiales; f Verrucomicrobiaceae; g Akkermansia; s muciniphila	0.0335	0.0000	0.0070	-0.0070	0.0029
118	344256	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0339	0.0218	0.0892	-0.0674	0.0284
119	166869	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0341	0.0000	0.0057	-0.0057	0.0024
120	264844	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0341	0.0000	0.0057	-0.0057	0.0024
121	324595	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0341	0.0000	0.0057	-0.0057	0.0024
122	176977	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0343	0.0574	0.8188	-0.7614	0.3220
123	196746	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0343	0.0264	0.0000	0.0264	0.0112
124	228785	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Dehalobacteriaceae; g Dehalobacterium; s	0.0349	0.0177	0.0000	0.0177	0.0075
125	335632	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0350	0.0000	0.0526	-0.0526	0.0224
126	275423	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0351	0.0000	0.0119	-0.0119	0.0050
127	172622	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0355	0.0143	0.0941	-0.0798	0.0340
128	259667	Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0364	0.0252	0.1199	-0.0947	0.0406
129	277202	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f ; g ; s	0.0367	0.0158	0.0000	0.0158	0.0068
130	272949	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0379	0.0035	0.0326	-0.0292	0.0126
131	313724	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0381	0.0000	0.0050	-0.0050	0.0022
132	264774	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0384	0.0522	0.0074	0.0448	0.0194
133	191811	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0387	0.0029	0.0297	-0.0269	0.0117
134	177414	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0392	0.0549	0.0074	0.0474	0.0207
135	261500	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0396	0.0330	0.0900	-0.0570	0.0249
136	231318	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0408	0.0340	0.2721	-0.2381	0.1048
137	262541	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0431	0.1680	0.0464	0.1216	0.0543
138	269815	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0438	0.0000	0.0100	-0.0100	0.0045
139	185177	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0451	0.0050	0.0529	-0.0479	0.0216
140	2420243	Root; k Bacteria; p Proteobacteria; c Alphaproteobacteria; o Rickettsiales; f mitochondria; g ; s	0.0453	0.0110	0.0460	-0.0350	0.0158
141	179575	Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0453	0.1319	0.0034	0.1284	0.0580
142	3172943	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0454	0.1041	0.0056	0.0986	0.0446
143	305880	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0463	0.1588	0.0345	0.1243	0.0565
144	335330	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0473	0.0096	0.1283	-0.1187	0.0542
145	128227	Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g Lactobacillus; s	0.0475	0.0218	0.0059	0.0159	0.0073
146	260660	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g Coprococcus; s	0.0475	0.0000	0.0153	-0.0153	0.0070
147	133719	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0476	0.0640	0.0000	0.0640	0.0293
148	1105687	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0476	0.0939	0.0056	0.0884	0.0404
149	267717	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0480	0.0000	0.0102	-0.0102	0.0047
150	267536	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Clostridiaceae; g ; s	0.0480	0.0187	0.0000	0.0187	0.0086
151	262148	Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0493	0.0707	0.2406	-0.1699	0.0784
152	340297	Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0498	0.0626	0.0000	0.0626	0.0289

TLR5^{-/-} water versus TLR5^{-/-} CMC

Prok_MSA #	Taxonomy	P value	Mean water-treated	Mean CMC-treated	Difference	SE of difference
1	261177 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	3.1688	13.4993	-10.3305	1.1563
2	1871227 Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f [Coprobaclaceae]; g Coprobacillus; s	0.0002	0.0341	0.0000	0.0341	0.0049
3	262166 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0005	0.1059	0.4485	-0.3426	0.0571
4	196067 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0006	0.0840	0.0154	0.0686	0.0117
5	330278 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0007	0.0000	0.0583	-0.0583	0.0102
6	228329 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0009	4.2106	0.4350	3.7756	0.6822
7	336193 Root; k Bacteria; p Proteobacteria; c Betaproteobacteria; o Burkholderiales; f Alcaligenaceae; g Sutterella; s	0.0013	3.2639	0.4792	2.7847	0.5372
8	1105687 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0018	0.2218	0.0409	0.1809	0.0372
9	179457 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0030	0.0164	0.0843	-0.0679	0.0152
10	269103 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0031	0.0105	0.1972	-0.1867	0.0424
11	194225 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0034	0.2941	0.8077	-0.5135	0.1186
12	449353 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Dehalobacteriaceae; g Dehalobacterium; s	0.0047	0.0338	0.0049	0.0290	0.0071
13	332608 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0054	0.1735	0.0571	0.1164	0.0293
14	379762 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0058	0.0735	0.0188	0.0546	0.0140
15	261350 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0073	0.0624	0.0182	0.0442	0.0118
16	229150 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0073	0.0556	0.0086	0.0470	0.0126
17	453759 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0073	0.0052	0.0468	-0.0416	0.0111
18	209216 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0077	0.0166	0.2173	-0.2007	0.0543
19	174004 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0078	0.2241	0.0375	0.1867	0.0506
20	332364 Root; k Bacteria; p Firmicutes; c Bacilli; o Lactobacillales; f Lactobacillaceae; g ; s	0.0089	0.0770	0.0189	0.0580	0.0162
21	259888 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0098	0.5011	0.0000	0.5011	0.1425
22	196578 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0100	0.1673	0.0405	0.1268	0.0362
23	185989 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0105	0.0000	0.1846	-0.1846	0.0533
24	326048 Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f Coriobacteriaceae; g ; s	0.0111	0.0000	0.0385	-0.0385	0.0112
25	342786 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0111	0.4478	0.0000	0.4478	0.1308
26	185995 Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0113	0.0161	0.0000	0.0161	0.0047
27	188889 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Prevotellaceae; g Prevotella; s	0.0114	1.9384	0.2872	1.6513	0.4848
28	796765 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0125	0.1661	0.0000	0.1661	0.0498
29	262831 Root; k Bacteria; p Firmicutes; c Erysipelotrichi; o Erysipelotrichales; f [Coprobaclaceae]; g Coprobacillus; s	0.0129	0.1023	0.0000	0.1023	0.0309
30	176977 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0139	0.0000	0.3170	-0.3170	0.0974
31	374370 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0157	0.3162	0.6966	-0.3804	0.1200
32	276509 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0174	0.0346	0.2296	-0.1950	0.0629
33	270065 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g [Ruminococcus]; s gnavus	0.0178	0.0000	0.0785	-0.0785	0.0255
34	258522 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0178	0.0359	0.4318	-0.3958	0.1286
35	216933 Root; k Bacteria; p Firmicutes; c Bacilli; o Turicibacteriales; f Turicibacteraceae; g Turicibacter; s	0.0180	1.3019	0.0036	1.2983	0.4225
36	341213 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0182	0.0462	0.0036	0.0426	0.0139
37	174420 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0191	0.0000	0.0189	-0.0189	0.0062
38	308076 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0192	0.8523	3.2243	-2.3720	0.7838
39	187294 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f [Odoribacteraceae]; g Odoribacter; s	0.0201	0.1626	0.0357	0.1269	0.0424
40	314471 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0209	0.0000	0.0297	-0.0297	0.0100
41	194043 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0213	0.0000	0.0305	-0.0305	0.0103
42	197782 Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0217	0.0270	0.0000	0.0270	0.0092
43	234533 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f ; g ; s	0.0219	0.6159	0.1003	0.5156	0.1757
44	234036 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0225	1.0153	3.4279	-2.4127	0.8275
45	278712 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0236	0.0000	0.0281	-0.0281	0.0097
46	274297 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0240	0.0779	0.0073	0.0705	0.0246
47	197074 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0242	0.0286	0.0621	-0.0335	0.0117
48	206817 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0273	0.0000	0.0354	-0.0354	0.0127
49	181605 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0273	0.1464	0.4975	-0.3511	0.1263
50	180731 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Porphyromonadaceae; g Parabacteroides; s	0.0274	1.8507	0.0672	1.7835	0.6420
51	182945 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0277	0.0000	0.1122	-0.1122	0.0405
52	180773 Root; k Bacteria; p Firmicutes; c Clostridia; o ; f ; g ; s	0.0279	0.0322	0.0037	0.0285	0.0103
53	303184 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0280	0.0000	0.0182	-0.0182	0.0066

54	341913	Root; k_Bacteria; p_Bacteroidetes; c_Bacteroidia; o_Bacteroidales; f_S24-7; g_ ; s_	0.0281	0.2945	0.1175	0.1770	0.0641
55	189406	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_Oscillospira; s_	0.0282	0.0308	0.0000	0.0308	0.0112
56	398839	Root; k_Bacteria; p_Proteobacteria; c_Betaproteobacteria; o_Burkholderiales; f_Alcaligenaceae; g_Sutterella; s_	0.0303	1.3607	4.8081	-3.4474	1.2731
57	267455	Root; k_Bacteria; p_Firmicutes; c_Erysipelotrichi; o_Erysipelotrichales; f_[Coprobaillaceae]; g_ ; s_	0.0313	0.3763	0.0085	0.3678	0.1369
58	325126	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_ ; f_ ; g_ ; s_	0.0313	0.0667	0.0040	0.0628	0.0234
59	533785	Root; k_Bacteria; p_Actinobacteria; c_Actinobacteria; o_Bifidobacteriales; f_Bifidobacteriaceae; g_Bifidobacterium; s_	0.0321	0.3507	2.2492	-1.8985	0.7118
60	191814	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0350	0.1910	0.0326	0.1584	0.0608
61	408925	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_Ruminococcus; s_	0.0373	0.1016	0.0000	0.1016	0.0396
62	179681	Root; k_Bacteria; p_Bacteroidetes; c_Bacteroidia; o_Bacteroidales; f_S24-7; g_ ; s_	0.0382	0.1697	1.0390	-0.8693	0.3412
63	170248	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0386	0.9654	0.1224	0.8430	0.3318
64	356073	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Lachnospiraceae; g_ ; s_	0.0398	0.0914	0.0000	0.0914	0.0363
65	264696	Root; k_Bacteria; p_Verrucomicrobia; c_Verrucomicrobiae; o_Verrucomicrobiales; f_Verrucomicrobiaceae; g_Akkermansia; s_muciniphila	0.0412	0.4091	0.0000	0.4091	0.1639
66	342504	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Clostridiaceae; g_ ; s_	0.0443	0.0738	0.0085	0.0653	0.0267
67	405780	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_Ruminococcus; s_	0.0447	0.1383	0.0104	0.1280	0.0524
68	863612	Root; k_Bacteria; p_Firmicutes; c_Clostridia; o_Clostridiales; f_Ruminococcaceae; g_ ; s_	0.0453	0.0000	0.0442	-0.0442	0.0182

TLR5^{-/-} water versus TLR5^{-/-} P80

Prok_MSA #	Taxonomy	P value	Mean water-treated	Mean P80-treated	Difference	SE of difference
1	276509 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	0.0346	0.5894	-0.5548	0.0444
2	215495 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	< 0.0001	0.0000	0.0184	-0.0184	0.0011
3	228046 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	< 0.0001	0.0000	0.0184	-0.0184	0.0011
4	179457 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0010	0.0164	0.1141	-0.0977	0.0144
5	196067 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0014	0.0840	0.0052	0.0788	0.0124
6	308076 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0015	0.8523	11.5855	-10.7333	1.7141
7	199727 Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f Coriobacteriaceae; g Adlercreutzia; s	0.0028	0.0125	0.0920	-0.0795	0.0145
8	227649 Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f ; g ; s	0.0033	0.0341	0.0000	0.0341	0.0065
9	379762 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0049	0.0735	0.0171	0.0564	0.0118
10	271131 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0101	0.0255	0.2566	-0.2312	0.0575
11	354163 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0106	0.0000	0.0250	-0.0250	0.0063
12	261350 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0107	0.0624	0.0104	0.0519	0.0131
13	340297 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Ruminococcus; s	0.0127	0.0446	0.0067	0.0380	0.0100
14	295564 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0151	1.6394	7.3992	-5.7598	1.5882
15	170335 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f [Odoribacteriaceae]; g Odoribacter; s	0.0151	0.0783	0.0067	0.0716	0.0198
16	190673 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0168	0.0395	0.0000	0.0395	0.0112
17	206324 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0194	0.0346	0.1749	-0.1403	0.0414
18	449353 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Dehalobacteriaceae; g Dehalobacterium; s	0.0194	0.0338	0.0065	0.0273	0.0081
19	431900 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0270	3.0820	2.1063	0.9757	0.3153
20	353782 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Bacteroidaceae; g ; s	0.0290	0.2212	1.0919	-0.8707	0.2872
21	228329 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0330	4.2106	0.9817	3.2290	1.1056
22	827376 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0337	0.0393	0.0052	0.0341	0.0117
23	1105687 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g Oscillospira; s	0.0349	0.2218	0.0850	0.1367	0.0476
24	188889 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Prevotellaceae; g Prevotella; s	0.0353	1.9384	0.0930	1.8455	0.6448
25	233169 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Ruminococcaceae; g ; s	0.0366	0.1983	0.0130	0.1853	0.0654
26	556126 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f Bacteroidaceae; g Bacteroides; s	0.0384	0.0498	0.1773	-0.1274	0.0457
27	181605 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0402	0.1464	0.0133	0.1331	0.0484
28	231510 Root; k Bacteria; p Firmicutes; c Clostridia; o Coriobacteriales; f Coriobacteriaceae; g Adlercreutzia; s	0.0402	0.0000	0.0314	-0.0314	0.0114
29	258910 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0428	0.6726	1.7007	-1.0281	0.3808
30	312440 Root; k Bacteria; p Bacteroidetes; c Bacteroidia; o Bacteroidales; f S24-7; g ; s	0.0444	0.1766	0.8603	-0.6837	0.2562
31	3115571 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0492	0.0053	0.0236	-0.0183	0.0071
32	259888 Root; k Bacteria; p Firmicutes; c Clostridia; o Clostridiales; f Lachnospiraceae; g ; s	0.0497	0.5011	0.0067	0.4945	0.1920