

Table S2. Changes in relative fecal abundances of bacterial taxa in WT mice

This table lists OTUs that are significantly different in abundance (FDR-corrected $p < 0.05$) in the fecal microbiota of WT mice between at least 2 of the diet groups as determined using a mixed linear model.

Estimate indicates the difference in the least square means of log10 normalized counts of OTUs between:

a) high vs low iron diet (negative = OTU decreased in the high iron diet; positive = OTU increased in the high iron diet),

b) control vs high iron diet (negative = OTU decreased in the control diet; positive = OTU increased in the control diet),

c) control vs low iron diet (negative = OTU decreased in the control diet; positive = OTU increased in control diet).

Comparison	Consensus OTU	Taxonomy	Estimate	FDR p -value
High vs Low Iron Diet	Consensus6	Allobaculum spp	-4.44	1.1E-07
	Consensus9	Akkermansia muciniphila	-3.56	5.9E-06
	Consensus85	Allobaculum spp	-3.31	1.1E-07
	Consensus21	Ruminococcus spp	-3.00	9.4E-06
	Consensus24	Bacteroidales	-2.41	3.2E-04
	Consensus11	Enterobacteriaceae	-2.39	2.6E-06
	Consensus38	Parabacteroides spp	-2.00	1.7E-03
	Consensus15	Peptostreptococcaceae	-1.44	5.6E-03
	Consensus5	Lactobacillales	0.74	4.6E-03
	Consensus216	Adlercreutzia spp	0.76	3.0E-02
	Consensus53	Ruminococcus spp	0.97	2.4E-02
	Consensus309	Clostridiales	1.07	3.2E-03
	Consensus295	Coriobacteriaceae	1.31	3.3E-05
	Consensus301	Clostridiales	1.34	9.1E-04
	Consensus88	Sutterella spp	1.38	1.0E-03
	Consensus215	Lachnospiraceae	1.43	3.1E-03
	Consensus168	S24-7	1.47	7.9E-08
	Consensus164	Lachnospiraceae	1.48	1.9E-03
	Consensus229	Clostridiaceae	1.52	3.0E-02
	Consensus224	Lactobacillus spp	1.53	2.0E-04
	Consensus186	Proteiniclasticum spp	1.53	8.3E-03
	Consensus192	Lachnospiraceae	1.56	3.7E-02
	Consensus244	Erysipelotrichaceae	1.57	3.5E-03
	Consensus306	Lactobacillus spp	1.58	5.3E-04
	Consensus89	Oscillospira spp	1.63	3.2E-02
	Consensus59	Clostridiaceae	1.66	1.9E-02
	Consensus95	Oscillospira spp	1.68	2.3E-02
	Consensus112	Enterococcus spp	1.79	2.7E-03
	Consensus83	Lachnospiraceae	1.92	8.6E-04
	Consensus13	Clostridium spp	1.96	1.7E-02
	Consensus104	Staphylococcus spp	2.04	2.1E-02
	Consensus52	Clostridiales	2.33	9.7E-04
	Consensus57	Lactobacillus spp	2.47	2.2E-02
	Consensus54	Streptococcus spp	2.48	2.5E-06

	Consensus17	Clostridiales	2.60	2.6E-05
	Consensus44	Lachnospiraceae	2.63	1.5E-03
	Consensus39	Lachnospiraceae	2.71	5.8E-03
	Consensus40	Ruminococcus gnavus	2.72	4.0E-04
	Consensus18	Clostridium spp	2.83	1.1E-02
	Consensus47	Coriobacteriaceae	2.95	1.3E-04
	Consensus31	Clostridiaceae	3.05	1.4E-03
	Consensus35	Clostridiales	3.07	1.2E-04
	Consensus4	Clostridiales	3.36	1.7E-06
	Consensus10	Allobaculum spp	3.93	1.2E-04
	Consensus8	Allobaculum spp	4.02	1.6E-04
Control vs High Iron Diet	Consensus8	Allobaculum spp	-3.01	4.0E-03
	Consensus10	Allobaculum spp	-2.93	3.4E-03
	Consensus35	Clostridiales	-2.54	1.2E-03
	Consensus40	Ruminococcus gnavus	-2.28	2.7E-03
	Consensus52	Clostridiales	-1.91	6.2E-03
	Consensus83	Lachnospiraceae	-1.74	2.5E-03
	Consensus47	Coriobacteriaceae	-1.66	2.7E-02
	Consensus44	Lachnospiraceae	-1.66	4.5E-02
	Consensus4	Clostridiales	-1.64	1.2E-02
	Consensus17	Clostridiales	-1.56	8.4E-03
	Consensus54	Streptococcus spp	-1.43	3.8E-03
	Consensus168	S24-7	-1.22	2.9E-06
	Consensus293	Lachnospiraceae	-1.13	8.9E-03
	Consensus244	Erysipelotrichaceae	-1.08	4.3E-02
	Consensus300	Lactococcus spp	-1.03	1.2E-02
	Consensus234	Adlercreutzia spp	-0.83	2.9E-02
	Consensus295	Coriobacteriaceae	-0.73	1.6E-02
	Consensus2	Lactobacillus spp	-0.56	2.7E-02
	Consensus7	S24-7	0.97	2.1E-02
	Consensus131	Bacteroides spp	0.99	1.7E-02
	Consensus151	Clostridium bifermentans	1.15	7.5E-03
	Consensus32	Clostridiaceae	1.24	2.7E-02
	Consensus24	Bacteroidales	1.42	3.1E-02
	Consensus85	Allobaculum spp	1.50	7.4E-03
	Consensus25	Clostridiaceae	1.55	8.8E-03
	Consensus21	Ruminococcus spp	1.68	8.7E-03
	Consensus230	Clostridiaceae	1.69	9.4E-05
	Consensus15	Peptostreptococcaceae	1.70	1.2E-03
	Consensus11	Enterobacteriaceae	1.95	7.0E-05
	Consensus236	Streptococcus spp	2.00	7.8E-04
	Consensus6	Allobaculum spp	2.48	1.0E-03
Control vs Low Iron Diet	Consensus20	Lachnospiraceae	-2.22	3.2E-02
	Consensus9	Akkermansia muciniphila	-2.15	4.3E-03
	Consensus6	Allobaculum spp	-1.96	9.7E-03
	Consensus85	Allobaculum spp	-1.81	1.4E-03
	Consensus21	Ruminococcus spp	-1.31	4.3E-02
	Consensus293	Lachnospiraceae	-1.21	6.0E-03
	Consensus2	Lactobacillus spp	-0.70	7.0E-03

Consensus224	Lactobacillus spp	0.84	4.0E-02
Consensus215	Lachnospiraceae	1.00	4.1E-02
Consensus164	Lachnospiraceae	1.04	3.2E-02
Consensus54	Streptococcus spp	1.06	3.7E-02
Consensus131	Bacteroides spp	1.13	7.7E-03
Consensus151	Clostridium bifermentans	1.24	5.0E-03
Consensus306	Lactobacillus spp	1.33	3.6E-03
Consensus230	Clostridiaceae	1.35	1.9E-03
Consensus32	Clostridiaceae	1.35	1.8E-02
Consensus25	Clostridiaceae	1.42	1.8E-02
Consensus112	Enterococcus spp	1.49	1.3E-02
Consensus229	Clostridiaceae	1.49	3.5E-02
Consensus105	Clostridiaceae	1.56	9.4E-03
Consensus186	Proteiniclasticum spp	1.60	7.1E-03
Consensus236	Streptococcus spp	1.61	6.8E-03
Consensus73	Clostridium perfringens	1.70	1.4E-02
Consensus4	Clostridiales	1.72	9.2E-03
Consensus59	Clostridiaceae	1.83	1.1E-02
Consensus18	Clostridium spp	2.39	3.5E-02
Consensus31	Clostridiaceae	2.47	9.5E-03