

The human intestinal microbiota of constipated-predominant irritable bowel syndrome patients exhibits anti-inflammatory properties

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Supplementary Table S1. Richness and Diversity of the Fecal Microbiota

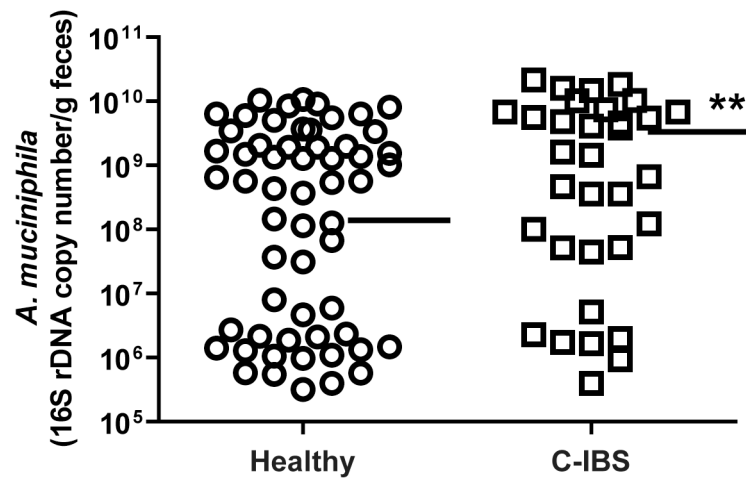
	Chao1 Richness Index	Shannon Diversity Index
Healthy Subjects	1579 ± 395	3.84 ± 0.19
C-IBS Patients	1922 ± 15	3.67 ± 0.002
N-HMAR	1997 ± 29	3.71 ± 0.005
C-IBS-HMAR	2099 ± 138	3.72 ± 0.24

Supplementary Table S2. Sequences of Primers for PCR

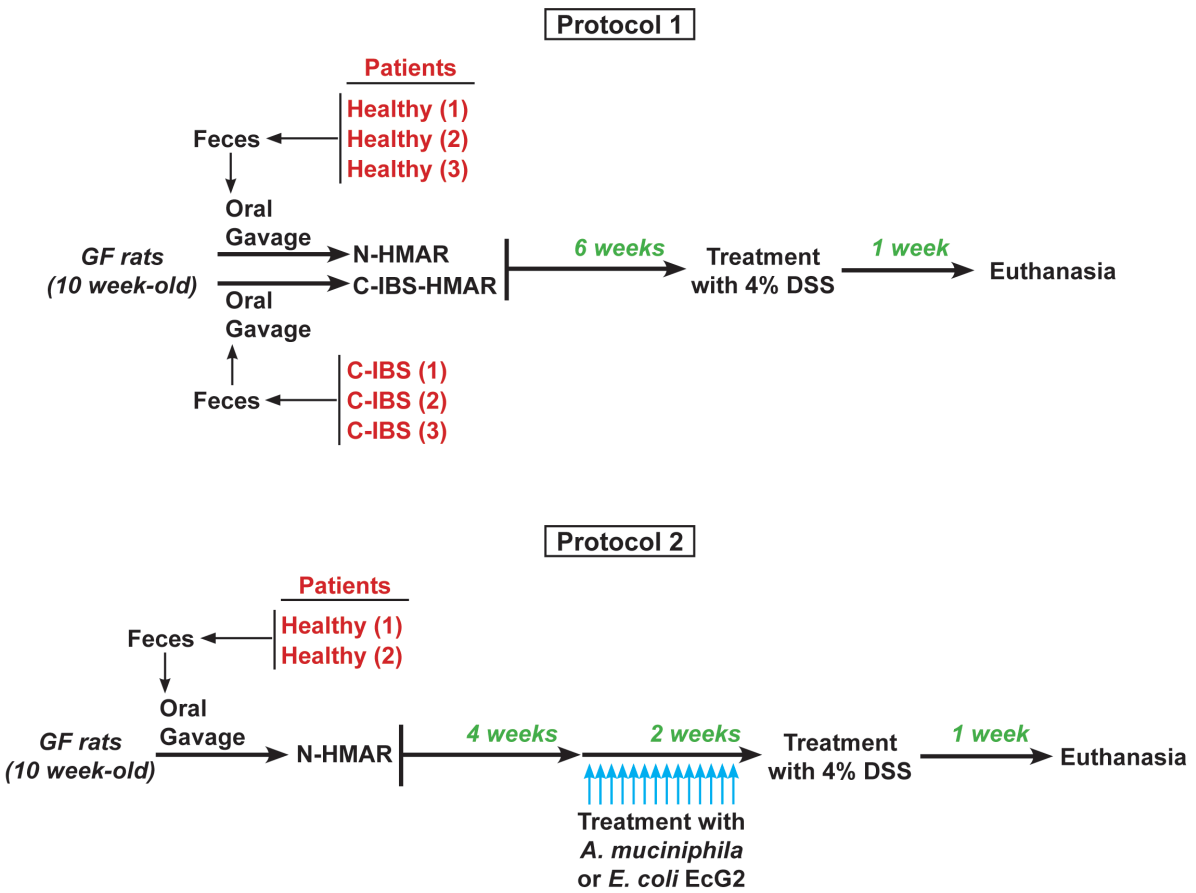
Species	Target gene	Sequence (5'-3')	Ref.
Eubacteria (Total bacteria)	16S rDNA	F: CGGTGAATACGTTCCCGG R: TACGGCTACCTTGTTACGACTT	1
Bacteroides/Prevotella group	16S rDNA	F: CCTWCGATGGATAGGGGTT R: CACGCTACTTGGCTGGTTCAG	1
<i>Clostridium coccooides</i> group	16S rDNA	F: CGGTACCTGACTAAGAAG R: AGTTYATTCTTGCGAAC	2
<i>Clostridium leptum</i>	16S rDNA	F: CACAATAAGTAATCCACC R: CTTCTCCGTTTTGTCAA	3
<i>Roseburia/Enterococcus rectale</i> group	16S rDNA	F: CGKACTAGAGTGTGCGGAGG R: AGTTYATTCTTGCGAACG	4
Enterobacteriaceae	16S rDNA	F: CATTGACGTTACCCGCAGAAGAAGC R: CTCTACGAGACTCAAGCTTGC	5
Bifidobacterium	16S rDNA	F: CGCGTCYGGTGTGAAAG R: CCCACATCCAGCATCCA	6
<i>Faecalibacterium prausnitzii</i>	16S rDNA	F: GGAGGAAGAAGGTCTTCGG R: AATCCGCCTACCTCTGCACT	7
<i>Desulfovibrio sp.</i>	16S rDNA	F: GGTACCTTCAAAGGAAGCAC R: GGGCTTTCACCCCTGACTTA	8
<i>Akkermansia muciniphila</i>	16S rDNA	F: CAGCACGTGAAGGTGGGGAC R: CCTTGCGGTTGGCTTCAGAT	7
<i>Escherichia coli</i>	16S rDNA	F: CATGCCGCGTGTATGAAGAA R: CGGGTAACGTCAATGAGCAAA	This work
Mouse	<i>Ifng</i>	F: GCTTTGCAGCTCTTCCTCAT R: GTCACCATCCTTTTGCCAGT	This work
Mouse	<i>Il1b</i>	F: ACCTGCTGGTGTGTGACGTTCC R: GGGTCCGACAGCACGAGGCT	This work
Mouse	<i>Il17</i>	F: TCCAGAAGGCCCTCAGACTA R: AGGACCAGGATCTCTTGCTG	This work
Mouse	<i>Nos2</i>	F: TCAGAGCCACAGTCCTCTTT R: TCCATGCAGACAACCTTGGT	This work
Mouse	<i>Tnf</i>	F: GTAGCCCACGTCGTAGCAA R: GGTGAGGAGCACGTAGTCG	This work
Rat	<i>Ifng</i>	F: CGAATCGCACCTGATCACTA R: GACTCCTTTTCCGCTTCCTT	This work
Rat	<i>Il1b</i>	F: GCATCCAGCTTCAAATCTCA R: ATCATCCCACGAGTCACAGA	This work
Rat	<i>Il6</i>	F: CCGGAGAGGAGACTTCACAG R: CAGAATTGCCATTGCAACAAC	This work
Rat	<i>Il17</i>	F: GTGAAGGCAGCGTACTCA R: TTCTGGAGCTCGCTTTTGA	This work
Rat	<i>Il22</i>	F: GCCAGCCTTGCAGATAACA R: ACTGGGGGAGCAGAACATC	This work
Rat	<i>Tnf</i>	F: GCCGATTTGCCATTTTCATAC R: TGGAAGACTCCTCCCAGGTA	This work
Rat/Mouse	<i>Actb</i>	F: CCAGAGCAAGAGAGGTATCC R: CTGTGGTGGTGAAGCTGTAG	This work

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Supplementary Figure S1. Quantification of *A. muciniphila* in the feces of healthy individuals or C-IBS patients. Fecal samples from the subjects were collected under anaerobic conditions. Total DNA was extracted and the presence of *A. muciniphila* was quantified by real-time PCR. Each dot represents one individual. $**P < 0.01$ vs. healthy subjects.



Supplementary Figure S2. Experimental design of the animal protocols used in this study.