

Supplemental Table 1. Primer sequences

Gene target	Sequence (5'-3')	References
<i>Akkermansia muciniphila</i>	F: 5'-CAGCACGTGAAGGTGGGGAC-3' R: 5'-CCTTGCGGTGGCTTCAGAT-3'	[1]
<i>Escherichia coli</i>	F: 5'-GGCCTTCGGGTTGTAAAGTA-3' R: 5'-AGACTCAAGCTTGCCAGTATC-3'	[2]
<i>Faecalibacterium prausnitzii</i>	F: 5'-AGATGGCCTCGCGTCCGA-3' R: 5'-CCGAAGACCTTCTTCCTCC-3'	[2]
<i>Lactobacillus</i> spp.	F: 5'-TGGAACAGRTGCTAATACCG-3' R: 5'-GTCCATTGTGGAAGATTCCC-3'	[3]
<i>Roseburia</i> spp./ <i>E. rectale</i>	F: 5'-GCGGTRCGGCAAGTCTGA-3' R: 5'-CCTCCGACACTCTAGTMCGAC-3'	[4]
<i>Ruminococcus torques</i>	F: 5'-TGCTTAACTGATCTTCTTCGGA-3' R: 5'-CGGTATTAGCAGTCATTTCTG-3'	[5]
Universal 16S rRNA (V4 region)	F: 5'-GCCAGCAGCCGCGGTAA-3' R: 5'-GACTACCAGGGTATCTAAT-3'	

Reference:

- [1] M.C. Collado, M. Derrien, E. Isolauri, W.M. de Vos, S. Salminen, Intestinal integrity and *Akkermansia muciniphila*, a mucin-degrading member of the intestinal microbiota present in infants, adults, and the elderly, *Applied and environmental microbiology* 73(23) (2007) 7767-70.
- [2] R.F. Wang, W.W. Cao, C.E. Cerniglia, Phylogenetic analysis of *Fusobacterium prausnitzii* based upon the 16S rRNA gene sequence and PCR confirmation, *International journal of systematic bacteriology* 46(1) (1996) 341-3.
- [3] R. Byun, M.A. Nadkarni, K.L. Chhour, F.E. Martin, N.A. Jacques, N. Hunter, Quantitative analysis of diverse *Lactobacillus* species present in advanced dental caries, *J Clin Microbiol* 42(7) (2004) 3128-36.
- [4] C. Ramirez-Farias, K. Slezak, Z. Fuller, A. Duncan, G. Holtrop, P. Louis, Effect of inulin on the human gut microbiota: stimulation of *Bifidobacterium adolescentis* and *Faecalibacterium prausnitzii*, *The British journal of nutrition* 101(4) (2009) 541-50.
- [5] A. Kassinen, L. Krogius-Kurikka, H. Mäkituokko, T. Rinttilä, L. Paulin, J. Corander, E. Malinen, J. Apajalahti, A. Palva, The fecal microbiota of irritable bowel syndrome patients differs significantly from that of healthy subjects, *Gastroenterology* 133(1) (2007) 24-33.

Supplemental Table 2. Antibodies used for immunoblotting¹

Antibodies	Dilution	Catalog number	Company
<i>Primary antibodies</i>			
GPX1	1:2000	GTX116040	GeneTex, Irvine, CA
SELENOH	1:1000	ab151023	Abcam, Cambridge, UK
SELENOP	1:1000	GTX63138	GeneTex, Irvine, CA
SELENOW	1:1000	NBP1-49599	Novus Biologicals, Littleton, CO
β-tubulin	1:5000	sc-55529	Santa Cruz Biotechnology, Santa Cruz, CA
Albumin	1:5000	4929	Cell signaling technology, Boston, MA
<i>Secondary antibodies</i>			
Anti-mouse	1:5000	7076	Cell signaling technology, Boston, MA
Anti-rabbit	1:5000	7074	Cell signaling technology, Boston, MA

¹Abbreviations used: GPX1, glutathione peroxidase-1; SELENOH, selenoprotein H; SELENOP, selenoprotein P; SELENOW, selenoprotein W.