

**S5 Table. 16S rRNA gene group-specific primers for quantitative Real Time-PCR<sup>1</sup>**

Main bacterial groups (target)	Bacterial reference strain	Forward primer (5' - 3')	Reverse primer (5' - 3')	References
<i>Enterobacteriaceae</i> ( $\gamma$ -Proteobacteria/ <i>Enterobacteriaceae</i> )	<i>Escherichia coli</i> ATCC 25922	AAACTCAAATGAATTGACGG	CTTTTGCAACCCACTCC	Kühbacher 2006 [3]
Enterococci	<i>Enterococcus gallinarum</i>	ATCAGAGGGGGATAACACTT	ACTCTCATCCTTGTTCTTCTC	Matsuda 2009 [4]
Lactic acid bacteria ( <i>Lactobacillus</i> group <sup>2</sup> )	<i>Lactobacillus acidophilus</i> DSM 20079	AGCAGTAGGGAATCTTCCA	CACCGCTACACATGGAG	Heilig 2002 [5] Walter 2001 [6]
<i>Bifidobacteria</i> ( <i>Bifidobacterium</i> genus)	<i>Bifidobacterium</i> sp. (murine origin)	CTCCTGGAAACGGGTGG	GGTGTTCTTCCCGATATCTACA	Matsuki 2002 [7]
<i>Bacteroides/ Prevotella</i> spp. ( <i>Bacteroides</i> group <sup>3</sup> )	<i>Bacteroides ovatus</i> DSMZ 1896	GAAGGTCCCCCACATTG	CAATCGGAGTTCTTCGTG	Bartosch 2004 [8]
<i>Clostridium leptum</i> group ( <i>Clostridium</i> <i>leptum</i> subgroup <sup>4</sup> )	<i>Clostridium leptum</i> DSMZ 753	TTACTGGGTGTAAAGGG	TAGAGTGCTCTTGCGTA	Van Dyke 2002 [9]
<i>Clostridium coccooides</i> group ( <i>Clostridium</i> <i>coccooides</i> <sup>5</sup> )	<i>Clostridium coccooides</i> DSMZ 935	AAATGACGGTACCTGACTAA	CTTTGAGTTTCATTCTTGCGAA	Matsuki 2002 [7]
Mouse intestinal bacteroidetes (Mouse Intestinal Bacteroides)	MIB plasmid 16-1	CCAGCAGCCGCGGTAATA	CGCATTCCGCATACTTCTC	Barman 2008 [10]
Total eubacterial load (Domain Bacteria, targets 16S V3 region)	<i>Escherichia coli</i> ATCC 25922	CGGYCCAGACTCCTACGGG	TTACCGCGGCTGCTGGCAC	Lee 1996 [11]

<sup>1</sup> from Rausch 2013 [12]

<sup>2</sup> including *Leuconostoc*, *Pediococcus*, *Aerococcus* and *Weissella* but not *Enterococcus* or *Streptococcus*

<sup>3</sup> including *Prevotella* and *Porphyromonas*

<sup>4</sup> including *Faecalibacterium* (*Fusobacterium*) *prausnitzii* *Clostridium* 16S rRNA cluster IV

<sup>5</sup> *Eubacterium rectale* subgroup (*Clostridium* 16S rRNA cluster XIVa/b)