Supplementary Table 1: **Primer sequences used in mRNA analysis, bacterial community profiling and mouse genotyping**

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| --- | --- | --- | --- | --- | --- |
| Target | Gene | Forward | Reverse | NCBI | |
| Mouse | il-10 | CGGGAAGACAATAACTGCACCC | CGGTTAGCAGTATGTTGTCCAGC | NM\_010548 | |
| Mouse | il-10R | TTGCATACGGGACAGAACTGC | TCCAGGGTGAACGTTGTGAG | NM\_008348.3 | |
| Human | MCT1 | TCCTTTTATCCTGCCACACC | GCATGCTGTTTTCCTTCTGC | AY364258.1 | |
| Mouse | mct1 | GTGACCATTGTGGAATGCTG | CTCCGCTTTCTGTTCTTTGG | NM\_009196.4 | |
| Human | ABCG2 | CACCTTATTGGCCTCAGGAA | CCTGCTTGGAAGGCTCTATG | AY017168.1 | |
| Mouse | abacg3 | TCGCAGAAGGAGATGTGTTG | TTGGATCTTTCCTTGCTGCT | BC053730.1 | |
| Human | MCT4 | GCACCCACAAGTTCTCCAGT | CAAAATCAGGGAGGAGGTGA | BC112269.1 | |
| Mouse | mct4 | ACGGCTGGTTTCATAACAGG | CCAATGGCACTGGAGAACTT | BC046525.1 | |
| Human | HCAR2 | CTTATCTGGGCCCAACCTCTC | CTTGCAACCAGTCTCCCACT | NM\_177551.4 | |
| Mouse | hcar2 | GAGCAGTTTTGGTTGCGAGG | GGGTGCATCTGGGACTCAAAT | NM\_030701.3 | |
| Mouse | ifn-γ | TGCCAAGTTTGAGGTCAACAACCCA | CCCACCCCGAATCAGCAGCG | NM\_008337.4 | |
| Mouse | ffar2 | CACCCAGAAGTTGGTCTGGT | GGGCAGGAAAATTCAGTCAA | NM\_146187.4 | |
| Mouse | 18s rRNA | ACGCGCGCTACACTGACTGG | CGATCCGAGGGCCTCACTAAACC | NR\_003278.3 | |
| Human | 18s rRNA | ATGGCCGTTCTTAGTTGGTG | CGCTGAGCCAGTCAGTGTAG | NR\_003286.2 | |
|  | Universal Bacterial 16s Primers | | | | |
| Bacterial | 16s rRNA V3-V4 | CCTACGGGAGGCAGCAG | GACTACGCGGGTATCTAATCC | (1) | |
|  | Genotyping | | | | |
|  |  | Upstream from the gene | Within the gene | (2) | |
| Mouse | ffar2 | GCGGAAGTTGGATGCTGCTTCCACG | GCACAGTTCCTTGATCCTCACGGCC |
|  |  | Within the targeting cassette | |
|  |  | GGGCCAGCTCATTCCTCCCACTCAT | |
|  |  |  | | |  | |  |

1. Klindworth, A. et al. Evaluation of general 16S ribosomal RNA gene PCR primers for classical and next-generation sequencing-based diversity studies. Nucleic Acids Res. 41. 1–11 (2012).
2. Bjursell, M. et al. Improved glucose control and reduced body fat mass in free fatty acid receptor 2-deficient mice fed a high-fat diet. Am J Physiol Endocrinol Metab. 300. 211-220 (2011).