**Supplementary Table 1. Full list of operational taxonomic units identified in the duodenal mucosal microbiota after removal of contaminants.** The number following the taxa name refers to its specific Greengenes assignment.

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| **Operational Taxonomic Unit** |
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| p\_\_Actinobacteria; g\_\_Actinomyces 4350499 |
| p\_\_Actinobacteria; g\_\_Actinomyces 516648 |
| p\_\_Actinobacteria; g\_\_Actinomyces 526682 |
| p\_\_Actinobacteria; g\_\_Actinomyces 92123 |
| p\_\_Actinobacteria; g\_\_Actinomyces New.ReferenceOTU30620 |
| p\_\_Actinobacteria; g\_\_Actinomyces New.ReferenceOTU32702 |
| p\_\_Actinobacteria; g\_\_Atopobium 4451251 |
| p\_\_Actinobacteria; g\_\_Collinsella 193575 |
| p\_\_Actinobacteria; g\_\_Collinsella 2919166 |
| p\_\_Actinobacteria; g\_\_Collinsella\_\_s\_\_aerofaciens 176828 |
| p\_\_Actinobacteria; g\_\_Rothia 532388 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 177679 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 187841 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 191483 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 194670 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 2134452 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 2740953 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 2865835 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 301578 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 315429 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 3439403 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 4384516 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 4385318 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 4390839 |
| p\_\_Bacteroidetes; g\_\_Bacteroides 4417335 |
| p\_\_Bacteroidetes; g\_\_Bacteroides\_\_s\_\_fragilis 3786232 |
| p\_\_Bacteroidetes; g\_\_Bacteroides\_\_s\_\_fragilis 4476964 |
| p\_\_Bacteroidetes; g\_\_Parabacteroides\_\_s\_\_distasonis 4450711 |
| p\_\_Bacteroidetes; g\_\_Porphyromonas 4311598 |
| p\_\_Bacteroidetes; g\_\_Porphyromonas 4375685 |
| p\_\_Bacteroidetes; g\_\_Prevotella 146094 |
| p\_\_Bacteroidetes; g\_\_Prevotella 269907 |
| p\_\_Bacteroidetes; g\_\_Prevotella 3910247 |
| p\_\_Bacteroidetes; g\_\_Prevotella 4298291 |
| p\_\_Bacteroidetes; g\_\_Prevotella 4324196 |
| p\_\_Bacteroidetes; g\_\_Prevotella 4404224 |
| p\_\_Bacteroidetes; g\_\_Prevotella 529349 |
| p\_\_Bacteroidetes; g\_\_Prevotella\_\_s\_\_melaninogenica 220889 |
| p\_\_Bacteroidetes; g\_\_Prevotella\_\_s\_\_melaninogenica 4307391 |
| p\_\_Bacteroidetes; g\_\_Prevotella\_\_s\_\_melaninogenica 4307782 |
| p\_\_Bacteroidetes; g\_\_Prevotella\_\_s\_\_melaninogenica 4321397 |
| p\_\_Bacteroidetes; g\_\_Prevotella\_\_s\_\_nigrescens 3746312 |
| p\_\_Bacteroidetes; g\_\_Prevotella\_\_s\_\_pallens 2222 |
| p\_\_Firmicutes; f\_\_Erysipelotrichaceae 2498994 |
| p\_\_Firmicutes; f\_\_Erysipelotrichaceae 3413566 |
| p\_\_Firmicutes; f\_\_Lachnospiraceae 165183 |
| p\_\_Firmicutes; f\_\_Lachnospiraceae 188856 |
| p\_\_Firmicutes; f\_\_Lachnospiraceae 4414044 |
| p\_\_Firmicutes; f\_\_Lachnospiraceae 4458700 |
| p\_\_Firmicutes; g\_\_Enterococcus 759349 |
| p\_\_Firmicutes; g\_\_Gemella 4304528 |
| p\_\_Firmicutes; g\_\_Gemella 4384936 |
| p\_\_Firmicutes; g\_\_Granulicatella 221127 |
| p\_\_Firmicutes; g\_\_Lactobacillus 4321285 |
| p\_\_Firmicutes; g\_\_Megasphaera 757622 |
| p\_\_Firmicutes; g\_\_Moryella 714766 |
| p\_\_Firmicutes; g\_\_Ruminococcus 173917 |
| p\_\_Firmicutes; g\_\_Ruminococcus 4357871 |
| p\_\_Firmicutes; g\_\_Streptococcus 1952427 |
| p\_\_Firmicutes; g\_\_Streptococcus 3855116 |
| p\_\_Firmicutes; g\_\_Streptococcus 4108335 |
| p\_\_Firmicutes; g\_\_Streptococcus 4290143 |
| p\_\_Firmicutes; g\_\_Streptococcus 4302587 |
| p\_\_Firmicutes; g\_\_Streptococcus 4312339 |
| p\_\_Firmicutes; g\_\_Streptococcus 4332287 |
| p\_\_Firmicutes; g\_\_Streptococcus 4396519 |
| p\_\_Firmicutes; g\_\_Streptococcus 4404925 |
| p\_\_Firmicutes; g\_\_Streptococcus 4430300 |
| p\_\_Firmicutes; g\_\_Streptococcus 4462083 |
| p\_\_Firmicutes; g\_\_Streptococcus 4463579 |
| p\_\_Firmicutes; g\_\_Streptococcus 4464348 |
| p\_\_Firmicutes; g\_\_Streptococcus 4472685 |
| p\_\_Firmicutes; g\_\_Streptococcus 4479373 |
| p\_\_Firmicutes; g\_\_Streptococcus 525966 |
| p\_\_Firmicutes; g\_\_Streptococcus 526131 |
| p\_\_Firmicutes; g\_\_Streptococcus 528357 |
| p\_\_Firmicutes; g\_\_Streptococcus 535353 |
| p\_\_Firmicutes; g\_\_Streptococcus 561636 |
| p\_\_Firmicutes; g\_\_Streptococcus 92535 |
| p\_\_Firmicutes; g\_\_Streptococcus New.ReferenceOTU10195 |
| p\_\_Firmicutes; g\_\_Streptococcus New.ReferenceOTU24800 |
| p\_\_Firmicutes; g\_\_Streptococcus New.ReferenceOTU45500 |
| p\_\_Firmicutes; g\_\_Streptococcus\_\_s\_\_infantis 1759711 |
| p\_\_Firmicutes; g\_\_Veillonella New.ReferenceOTU48046 |
| p\_\_Firmicutes; g\_\_Veillonella\_\_s\_\_dispar 2676430 |
| p\_\_Firmicutes; g\_\_Veillonella\_\_s\_\_dispar 4296244 |
| p\_\_Firmicutes; g\_\_Veillonella\_\_s\_\_dispar 4370169 |
| p\_\_Firmicutes; g\_\_Veillonella\_\_s\_\_dispar 4459750 |
| p\_\_Firmicutes; g\_\_Veillonella\_\_s\_\_dispar New.ReferenceOTU29141 |
| p\_\_Firmicutes; g\_\_Veillonella\_\_s\_\_parvula 4328910 |
| p\_\_Firmicutes; g\_\_Veillonella\_\_s\_\_parvula 4333043 |
| p\_\_Fusobacteria; g\_\_Fusobacterium 3461438 |
| p\_\_Fusobacteria; g\_\_Fusobacterium 4294781 |
| p\_\_Fusobacteria; g\_\_Leptotrichia 2480553 |
| p\_\_Proteobacteria; f\_\_Enterobacteriaceae 4469420 |
| p\_\_Proteobacteria; f\_\_Enterobacteriaceae 4475936 |
| p\_\_Proteobacteria; g\_\_Actinobacillus\_\_s\_\_parahaemolyticus 4318122 |
| p\_\_Proteobacteria; g\_\_Haemophilus 4309513 |
| p\_\_Proteobacteria; g\_\_Haemophilus\_\_s\_\_parainfluenzae 4303114 |
| p\_\_Proteobacteria; g\_\_Haemophilus\_\_s\_\_parainfluenzae 4375080 |
| p\_\_Proteobacteria; g\_\_Haemophilus\_\_s\_\_parainfluenzae 4455583 |
| p\_\_Proteobacteria; g\_\_Haemophilus\_\_s\_\_parainfluenzae 4458758 |
| p\_\_Proteobacteria; g\_\_Kingella New.ReferenceOTU18610 |
| p\_\_Proteobacteria; g\_\_Neisseria 4297332 |
| p\_\_Proteobacteria; g\_\_Neisseria 4312342 |
| p\_\_Proteobacteria; g\_\_Neisseria 4440404 |
| p\_\_Proteobacteria; g\_\_Neisseria 516198 |
| p\_\_Proteobacteria; g\_\_Neisseria\_\_s\_\_subflava 4374645 |
| p\_\_Proteobacteria; g\_\_Neisseria\_\_s\_\_subflava 76751 |

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Square brackets [ ] denote an assignment that most closely resembles the taxon in brackets, but cannot be identified further. The most specific level of assignment is listed for each taxon, with 97% similarity to the Greengenes v13.8 reference database. Abbreviations: p, phylum; f, family; g, genus; s, species; NA, not assigned; OTU, operational taxonomic unit.