| Taxa or OTU | Fold change ERE to HLT | Wilcoxon test *p* value | FDR |
| --- | --- | --- | --- |
| **Phylum** | | |  |
| Proteobacteria | 18.8513 | 0.0015 | 0.0120 |
| Actinobacteria | 0.2290 | 0.0031 | 0.0123 |
| Firmicutes | 0.7316 | 0.0097 | 0.0213 |
| TM7 | 0.1012 | 0.0106 | 0.0213 |
| Bacteroidetes | 1.5971 | 0.0330 | 0.0440 |
| **Class** | | |  |
| Alphaproteobacteria | 67.6871 | 0.0010 | 0.0193 |
| Epsilonoproteobacteria | 12.4762 | 0.0021 | 0.0195 |
| Actinobacteria | 0.2290 | 0.0031 | 0.0195 |
| Clostridia | 0.6758 | 0.0046 | 0.0220 |
| Erysipelotrichi | 4.5515 | 0.0072 | 0.0275 |
| TM7 incertae sedis | 0.1012 | 0.0106 | 0.0337 |
| Bacilli | 96.3975 | 0.0214 | 0.0507 |
| Bacteroidia | 1.5678 | 0.0330 | 0.0570 |
| Gammaproteobacteria | 183.1933 | 0.0595 | 0.0870 |
| **Order** | | |  |
| Alphaproteobacteria incertae sedis | 148.4874 | 0.0006 | 0.0146 |
| Campylobacterales | 12.4762 | 0.0021 | 0.0267 |
| Coriobacteriales | 0.2296 | 0.0031 | 0.0267 |
| Clostridiales | 0.6760 | 0.0046 | 0.0301 |
| Bacillales | 95.3061 | 0.0069 | 0.0304 |
| Erysipelotrichales | 4.5515 | 0.0072 | 0.0304 |
| Desulfovibrionales | 5.9524 | 0.0184 | 0.0438 |
| Enterobacteriales | 194.6429 | 0.0293 | 0.0552 |
| Bacteroidales | 1.5678 | 0.0330 | 0.0572 |
| **Family** | | |  |
| Bacteroidaceae | 10.9711 | 0.0001 | 0.0035 |
| Clostridiaceae | 335.2857 | 0.0002 | 0.0035 |
| Ruminococcaceae | 0.5136 | 0.0007 | 0.0054 |
| Bacillaceae | 128.5714 | 0.0007 | 0.0054 |
| Peptostreptococcaceae | 141.2857 | 0.0008 | 0.0054 |
| Clostridiales incertae sedis XIII | 5.3886 | 0.0011 | 0.0066 |
| Campylobacteraceae | 12.4762 | 0.0021 | 0.0106 |
| Novispirillum | 123.5714 | 0.0022 | 0.0106 |
| Coriobacteriaceae | 0.2296 | 0.0031 | 0.0133 |
| Clostridiales incertae sedis XIV | 0.4402 | 0.0046 | 0.0181 |
| Erysipelotrichaceae | 4.5515 | 0.0072 | 0.0260 |
| Enterobacteriaceae | 194.6429 | 0.0293 | 0.0672 |
| Desulfovibrionaceae | 4.8052 | 0.0339 | 0.0729 |
| **Genus** |  |  |  |
| Bacteroides | 10.9711 | 0.0001 | 0.0046 |
| Clostridium | 316.8571 | 0.0002 | 0.0046 |
| Turicibacter | 41.8571 | 0.0002 | 0.0046 |
| Sporacetigenium | 22.1429 | 0.0007 | 0.0092 |
| Anaerovorax | 5.3257 | 0.0011 | 0.0114 |
| Slackia | 0.1517 | 0.0017 | 0.0145 |
| Coprococcus | 0.1608 | 0.0021 | 0.0145 |
| Campylobacter | 12.4762 | 0.0021 | 0.0145 |
| Robinsoniella | 98.0952 | 0.0026 | 0.0157 |
| Lysinibacillus | 121.5714 | 0.0030 | 0.0160 |
| Olsenella | 0.1652 | 0.0040 | 0.0197 |
| Moryella | 0.0845 | 0.0045 | 0.0197 |
| Blautia | 0.4421 | 0.0046 | 0.0197 |
| Subdoligranulum | 0.2290 | 0.0046 | 0.0197 |
| Adlercreutzia | 0.2849 | 0.0054 | 0.0217 |
| Akkermansia | 14.5943 | 0.0097 | 0.0329 |
| Acetivibrio | 0.4297 | 0.0111 | 0.0349 |
| Persicirhabdus | 0.2183 | 0.0133 | 0.0403 |
| Escherichia/Shigella | 304.7143 | 0.0334 | 0.0801 |
| **OTU** |  |  |  |
| Otu000002- unclassified Verrucomicrobiaceae | 0.0727 | 0.0068 | 0.0932 |
| Otu000003- unclassified Ruminococcaceae | 0.1907 | 0.0002 | 0.0184 |
| Otu000006- Akkermansia | 17.9798 | 0.0031 | 0.0647 |
| Otu000013- Subdoligranulum | 0.0994 | 0.0004 | 0.0286 |
| Otu000020- unclassified Lachnospiraceae | 0.2856 | 0.0097 | 0.0981 |
| Otu000022- unclassified Ruminococcaceae | 0.2197 | 0.0046 | 0.0760 |
| Otu000023- unclassified Lachnospiraceae | 0.0321 | 0.0002 | 0.0184 |
| Otu000032- Olsenella | 0.1674 | 0.0020 | 0.0596 |
| Otu000033- unclassified Ruminococcaceae | 0.1552 | 0.0046 | 0.0760 |
| Otu000035- Bacteroides | 18.6180 | 0.0010 | 0.0356 |
| Otu000040- unclassified Lachnospiraceae | 0.0932 | 0.0063 | 0.0916 |
| Otu000041- unclassified Ruminococcaceae | 0.2349 | 0.0002 | 0.0184 |
| Otu000042- Campylobacter | 12.3977 | 0.0007 | 0.0286 |
| Otu000043- unclassified Lachnospiraceae | 0.1308 | 0.0097 | 0.0981 |
| Otu000044- unclassified Bacteria | 0.2066 | 0.0046 | 0.0760 |
| Otu000048- unclassified Clostridiales | 0.1172 | 0.0069 | 0.0932 |
| Otu000071- Coprococcus | 0.1974 | 0.0012 | 0.0405 |
| Otu000072- Blautia | 0.1575 | 0.0015 | 0.0478 |
| Otu000076- unclassified Clostridiales | 0.1526 | 0.0093 | 0.0981 |
| Otu000080- unclassified Lachnospiraceae | 0.1496 | 0.0095 | 0.0981 |
| Otu000086- unclassified Lachnospiraceae | 0.1972 | 0.0004 | 0.0286 |
| Otu000087- unclassified Lachnospiraceae | 29.1969 | 0.0036 | 0.0681 |
| Otu000097- unclassified Clostridiales | 0.0188 | 0.0037 | 0.0681 |
| Otu000111- unclassified Ruminococcaceae | 0.1819 | 0.0060 | 0.0916 |
| Otu000113- unclassified Lachnospiraceae | 0.1153 | 0.0010 | 0.0356 |
| Otu000115- unclassified Lachnospiraceae | 0.2179 | 0.0038 | 0.0688 |
| Otu000117- unclassified Lachnospiraceae | 0.2305 | 0.0093 | 0.0981 |
| Otu000120- unclassified Clostridiales | 0.1863 | 0.0069 | 0.0932 |
| Otu000122- unclassified Lachnospiraceae | 0.2050 | 0.0002 | 0.0184 |
| Otu000129- unclassified Lachnospiraceae | 262.0170 | 0.0002 | 0.0184 |
| Otu000170- unclassified Ruminococcaceae | 0.0618 | 0.0063 | 0.0916 |
| Otu000171- unclassified Lachnospiraceae | 0.1689 | 0.0007 | 0.0286 |
| Otu000172- Clostridium | 160.5891 | 0.0002 | 0.0184 |
| Otu000174- unclassified Clostridiales | 5.5544 | 0.0021 | 0.0596 |
| Otu000181- Alistipes | 7.0616 | 0.0071 | 0.0932 |
| Otu000182- unclassified Lachnospiraceae | 38.6121 | 0.0007 | 0.0286 |
| Otu000208- unclassified Firmicutes | 134.0252 | 0.0002 | 0.0184 |
| Otu000213- unclassified Lachnospiraceae | 0.1192 | 0.0044 | 0.0760 |
| Otu000214- unclassified Novispirillum | 128.8895 | 0.0073 | 0.0932 |
| Otu000215- Anaerovorax | 0.2497 | 0.0008 | 0.0286 |
| Otu000216- unclassified Clostridiales | 0.1762 | 0.0026 | 0.0647 |
| Otu000220- Blautia | 0.2743 | 0.0071 | 0.0932 |
| Otu000222- unclassified Clostridiales | 49.5734 | 0.0010 | 0.0356 |
| Otu000239- unclassified Clostridiales | 9.7761 | 0.0008 | 0.0286 |
| Otu000240- Ruminococcus | 0.1756 | 0.0037 | 0.0681 |
| Otu000249- unclassified Bacteria | 0.2250 | 0.0063 | 0.0916 |
| Otu000265- unclassified Ruminococcaceae | 7.0157 | 0.0026 | 0.0647 |
| Otu000267- Lysinibacillus | 122.7206 | 0.0030 | 0.0647 |
| Otu000268- unclassified Lachnospiraceae | 0.7244 | 0.0082 | 0.0981 |
| Otu000288- unclassified Alphaproteobacteria incertae sedis | 75.6603 | 0.0004 | 0.0286 |
| Otu000298- Anaerovorax | 3.3106 | 0.0031 | 0.0647 |
| Otu000303- unclassified Peptostreptococcaceae | 113.1259 | 0.0008 | 0.0286 |
| Otu000332- unclassified Ruminococcaceae | 15.0657 | 0.0074 | 0.0933 |
| Otu000335- Acetanaerobacterium | 27.6320 | 0.0002 | 0.0184 |
| Otu000350- unclassified Ruminococcaceae | 0.1758 | 0.0087 | 0.0981 |
| Otu000361- unclassified Lachnospiraceae | 0.3216 | 0.0066 | 0.0932 |
| Otu000364- unclassified Clostridiales | 5.8078 | 0.0039 | 0.0701 |
| Otu000375- Coprobacillus | 31.2396 | 0.0106 | 0.0981 |
| Otu000385- Clostridium | 74.0191 | 0.0002 | 0.0184 |
| Otu000386- unclassified Ruminococcaceae | 0.2431 | 0.0063 | 0.0916 |
| Otu000402- unclassified Ruminococcaceae | 0.2641 | 0.0005 | 0.0286 |
| Otu000443- unclassified Firmicutes | 2.0916 | 0.0073 | 0.0932 |
| Otu000448- Subdoligranulum | 19.4235 | 0.0037 | 0.0681 |
| Otu000449- unclassified Lachnospiraceae | 0.2049 | 0.0037 | 0.0681 |
| Otu000454- unclassified Alphaproteobacteria incertae sedis | 6.4219 | 0.0106 | 0.0981 |
| Otu000461- unclassified Ruminococcaceae | 0.3091 | 0.0063 | 0.0916 |
| Otu000481- Lachnospiraceae unclassified | 0.4540 | 0.0088 | 0.0981 |
| Otu000489- unclassified Clostridiales | 7.1914 | 0.0049 | 0.0785 |
| Otu000492- Blautia | 0.3692 | 0.0063 | 0.0916 |
| Otu000502- unclassified Clostridiales | 6.1207 | 0.0036 | 0.0681 |
| Otu000508- Robinsoniella | 47.9776 | 0.0030 | 0.0647 |
| Otu000516- Clostridium | 46.6829 | 0.0030 | 0.0647 |
| Otu000520- unclassified Ruminococcaceae | 6.9125 | 0.0020 | 0.0596 |
| Otu000534- Turicibacter | 39.3835 | 0.0002 | 0.0184 |
| Otu000586- Robinsoniella | 34.3185 | 0.0030 | 0.0647 |
| Otu000589- unclassified Clostridiales | 32.4840 | 0.0030 | 0.0647 |
| Otu000607- unclassified Clostridiales | 22.1976 | 0.0008 | 0.0286 |
| Otu000608- Adlercreutzia | 0.6828 | 0.0044 | 0.0760 |
| Otu000673- unclassified Ruminococcaceae | 0.4775 | 0.0087 | 0.0981 |
| Otu000705- unclassified Lachnospiraceae | 16.9863 | 0.0008 | 0.0286 |
| Otu000735- Clostridium | 20.9061 | 0.0008 | 0.0286 |
| Otu000757- Sporacetigenium | 19.3525 | 0.0008 | 0.0286 |
| Otu000768- Lachnospiraceae unclassified | 0.4357 | 0.0087 | 0.0981 |
| Otu000773- unclassified Ruminococcaceae | 3.6838 | 0.0073 | 0.0932 |
| Otu000774- Clostridium | 18.0468 | 0.0002 | 0.0184 |
| Otu000790- unclassified Bacteria | 3.8485 | 0.0106 | 0.0981 |
| Otu000800- Subdoligranulum | 14.5628 | 0.0106 | 0.0981 |
| Otu000806- unclassified Ruminococcaceae | 6.2743 | 0.0106 | 0.0981 |
| Otu000813- unclassified Bacteria | 8.8311 | 0.0106 | 0.0981 |
| Otu000848- Robinsoniella | 14.9686 | 0.0106 | 0.0981 |
| Otu000870- unclassified Lachnospiraceae | 4.8854 | 0.0026 | 0.0647 |
| Otu000885- Clostridium | 14.1464 | 0.0106 | 0.0981 |
| Otu000921- unclassified Clostridiales | 3.0119 | 0.0106 | 0.0981 |
| Otu000973- unclassified Ruminococcaceae | 0.0727 | 0.0068 | 0.0932 |
| Otu000990- Robinsoniella | 0.1907 | 0.0002 | 0.0184 |
| Otu001030- Anaerovorax | 17.9798 | 0.0031 | 0.0647 |
| Otu001132- unclassified Clostridiales | 0.0994 | 0.0004 | 0.0286 |
| Otu001312- unclassified Bacteria | 0.2856 | 0.0097 | 0.0981 |
| Otu001323- Robinsoniella | 0.2197 | 0.0046 | 0.0760 |
| Otu001369- Robinsoniella | 0.0321 | 0.0002 | 0.0184 |
| Otu001422- unclassified Clostridiales | 0.1674 | 0.0020 | 0.0596 |
| Otu001455- Dorea | 0.1552 | 0.0046 | 0.0760 |
| Otu001507- unclassified Ruminococcaceae | 18.6180 | 0.0010 | 0.0356 |
| Otu001542- unclassified Clostridiales | 0.0932 | 0.0063 | 0.0916 |
| Otu002530- Anaerovorax | 0.2349 | 0.0002 | 0.0184 |
| Otu002777- unclassified Clostridiales | 12.3977 | 0.0007 | 0.0286 |