|  |  |  |
| --- | --- | --- |
| Taxa | | p-value |
| 1 | g\_\_Prevotella\_Cluster\_2 | 0.496291702231095 |
| 2 | g\_\_Ligilactobacillus\_Cluster\_3 | 0.545349668011121 |
| 3 | g\_\_Bacteroides\_Cluster\_4 | 0.545349668011121 |
| 4 | g\_\_Lactobacillus\_Cluster\_5 | 0.70545698611127 |
| 5 | g\_\_Limosilactobacillus\_Cluster\_6 | 0.496291702231095 |
| 6 | g\_\_Rikenellaceae\_RC9\_gut\_group\_Cluster\_7 | 0.545349668011121 |
| 7 | g\_\_Muribaculaceae\_genus\_Cluster\_8 | 0.0283655056052102 |
| 8 | g\_\_Blautia\_Cluster\_9 | 0.289918453942572 |
| 9 | g\_\_Lachnospiraceae\_NK4A136\_group\_Cluster\_10 | 0.256839257957856 |
| 10 | g\_\_UCG-005\_Cluster\_11 | 0.289918453942572 |
| 11 | g\_\_Odoribacter\_Cluster\_13 | 0.496291702231095 |
| 12 | g\_\_Romboutsia\_Cluster\_17 | 0.364346126633552 |
| 13 | g\_\_Clostridium\_Cluster\_22 | 0.0233422020128909 |
| 14 | g\_\_Desulfovibrionaceae\_genus\_Cluster\_26 | 0.130570018115735 |
| 15 | g\_\_Turicibacter\_Cluster\_28 | 0.325751354478715 |
| 16 | g\_\_Ruminococcus\_gauvreauii\_group\_Cluster\_30 | 0.762368818469847 |
| 17 | g\_\_Oscillospiraceae\_genus\_Cluster\_31 | 0.256839257957856 |
| 18 | g\_\_Phascolarctobacterium\_Cluster\_32 | 0.545349668011121 |
| 19 | g\_\_Paramuribaculum\_Cluster\_37 | 0.256839257957856 |
| 20 | g\_\_CAG-485\_Cluster\_41 | 0.173617334424944 |
| 21 | g\_\_Ruminococcus\_Cluster\_42 | 0.596701216729351 |
| 22 | g\_\_Acholeplasmataceae\_genus\_Cluster\_44 | 0.256839257957856 |
| 23 | g\_\_Bifidobacterium\_Cluster\_46 | 0.173617334424944 |
| 24 | g\_\_Alistipes\_Cluster\_50 | 0.496291702231095 |
| 25 | g\_\_Akkermansia\_Cluster\_57 | 0.112410584655363 |
| 26 | g\_\_Escherichia\_Cluster\_59 | 0.0696424047983281 |
| 27 | g\_\_Anaerostipes\_Cluster\_63 | 0.130570018115735 |
| 28 | g\_\_Eubacterium\_F\_Cluster\_64 | 0.596701216729351 |
| 29 | g\_\_Lachnospiraceae\_genus\_Cluster\_74 | 0.289918453942572 |
| 30 | g\_\_Gastranaerophilales\_genus\_Cluster\_75 | 0.130570018115735 |
| 31 | g\_\_UMGS1872\_Cluster\_77 | 0.939742989577085 |
| 32 | g\_\_Bacteroidales\_genus\_Cluster\_81 | 0.364346126633552 |
| 33 | g\_\_UBA1394\_Cluster\_84 | 0.325751354478715 |
| 34 | g\_\_Prevotellaceae\_NK3B31\_group\_Cluster\_85 | 0.364346126633552 |
| 35 | g\_\_Muribaculum\_Cluster\_92 | 0.65014744409486 |
| 36 | g\_\_TF01-11\_Cluster\_96 | 0.879829160011815 |
| 37 | g\_\_Erysipelatoclostridium\_Cluster\_100 | 0.449691797968892 |
| 38 | g\_\_Eubacterium\_coprostanoligenes\_group\_genus\_Cluster\_105 | 0.762368818469847 |
| 39 | g\_\_Schaedlerella\_Cluster\_107 | 0.226476066043488 |
| 40 | g\_\_UBA3282\_Cluster\_115 | 0.0233422020128909 |
| 41 | g\_\_Peptococcaceae\_genus\_Cluster\_129 | 0.00319709944793456 |
| 42 | g\_\_Lachnospiraceae\_NK4B4\_group\_Cluster\_134 | 0.879829160011815 |
| 43 | g\_\_Marvinbryantia\_Cluster\_135 | 0.820595839755438 |
| 44 | g\_\_UBA7160\_Cluster\_139 | 0.130570018115735 |
| 45 | g\_\_Blautia\_A\_Cluster\_140 | 0.762368818469847 |
| 46 | g\_\_Turicimonas\_Cluster\_144 | 0.820595839755438 |
| 47 | g\_\_Colidextribacter\_Cluster\_148 | 0.449691797968892 |
| 48 | g\_\_ASF356\_Cluster\_153 | 0.173617334424944 |
| 49 | g\_\_Eubacterium\_siraeum\_group\_Cluster\_154 | 0.150926950066717 |
| 50 | g\_\_Eubacterium\_G\_Cluster\_155 | 0.364346126633552 |
| 51 | g\_\_Lachnospiraceae\_NC2004\_group\_Cluster\_159 | 0.879829160011815 |
| 52 | g\_\_Campylobacter\_Cluster\_164 | 0.596701216729351 |
| 53 | g\_\_1XD42-69\_Cluster\_177 | 0.879829160011815 |
| 54 | g\_\_UBA9502\_Cluster\_179 | 0.545349668011121 |
| 55 | g\_\_Enterorhabdus\_Cluster\_182 | 0.096303692028687 |
| 56 | g\_\_Bacilli\_genus\_Cluster\_185 | 0.939742989577085 |
| 57 | g\_\_Lawsonibacter\_Cluster\_189 | 0.0155644113866339 |
| 58 | g\_\_Rhodospirillales\_genus\_Cluster\_192 | 0.70545698611127 |
| 59 | g\_\_Defluviitaleaceae\_UCG-011\_Cluster\_194 | 0.173617334424944 |
| 60 | g\_\_Fusicatenibacter\_Cluster\_197 | 0.596701216729351 |
| 61 | g\_\_Eubacterium\_xylanophilum\_group\_Cluster\_199 | 0.70545698611127 |
| 62 | g\_\_Kineothrix\_Cluster\_203 | 0.325751354478715 |
| 63 | g\_\_COE1\_Cluster\_208 | 0.545349668011121 |
| 64 | g\_\_Phocaeicola\_Cluster\_209 | 0.449691797968892 |
| 65 | g\_\_Oscillibacter\_Cluster\_214 | 0.256839257957856 |
| 66 | g\_\_Lachnospiraceae\_UCG-006\_Cluster\_216 | 0.879829160011815 |
| 67 | g\_\_Eubacterium\_fissicatena\_group\_Cluster\_218 | 0.226476066043488 |
| 68 | g\_\_Ruminococcus\_torques\_group\_Cluster\_226 | 0.545349668011121 |
| 69 | g\_\_Eubacterium\_Cluster\_229 | 0.325751354478715 |
| 70 | g\_\_CAG-95\_Cluster\_234 | 0.596701216729351 |
| 71 | g\_\_Roseburia\_Cluster\_248 | 0.879829160011815 |
| 72 | g\_\_UMGS1994\_Cluster\_255 | 0.70545698611127 |
| 73 | g\_\_UCG-003\_Cluster\_258 | 0.289918453942572 |
| 74 | g\_\_Frisingicoccus\_Cluster\_269 | 0.0412500165939395 |
| 75 | g\_\_Duncaniella\_Cluster\_278 | 0.820595839755438 |
| 76 | g\_\_Emergencia\_Cluster\_280 | 0.939742989577085 |
| 77 | g\_\_Erysipelotrichaceae\_UCG-003\_Cluster\_285 | 0.173617334424944 |
| 78 | g\_\_AM07-15\_Cluster\_296 | 0.65014744409486 |
| 79 | g\_\_Papillibacter\_Cluster\_308 | 0.0412500165939395 |
| 80 | g\_\_Rothia\_Cluster\_313 | 0.70545698611127 |
| 81 | g\_\_Streptococcus\_Cluster\_312 | 0.596701216729351 |
| 82 | g\_\_Acutalibacter\_Cluster\_320 | 0.65014744409486 |
| 83 | g\_\_Lachnospiraceae\_UCG-001\_Cluster\_323 | 0.496291702231095 |
| 84 | g\_\_Lachnospiraceae\_FCS020\_group\_Cluster\_336 | 0.112410584655363 |
| 85 | g\_\_Lachnoclostridium\_Cluster\_339 | 0.65014744409486 |
| 86 | g\_\_Anaerotruncus\_Cluster\_341 | 0.545349668011121 |
| 87 | g\_\_Murimonas\_Cluster\_346 | 0.939742989577085 |
| 88 | g\_\_NK4A214\_group\_Cluster\_353 | 0.496291702231095 |
| 89 | g\_\_A2\_Cluster\_361 | 0.65014744409486 |
| 90 | g\_\_Clostridia\_vadinBB60\_group\_genus\_Cluster\_363 | 1 |
| 91 | g\_\_UMGS1815\_Cluster\_369 | 0.762368818469847 |
| 92 | g\_\_Anaerosacchariphilus\_Cluster\_373 | 0.325751354478715 |
| 93 | g\_\_14-2\_Cluster\_429 | 0.289918453942572 |
| 94 | g\_\_Clostridia\_UCG-014\_genus\_Cluster\_435 | 0.226476066043488 |
| 95 | g\_\_Paludicola\_Cluster\_440 | 0.939742989577085 |
| 96 | g\_\_Ruthenibacterium\_Cluster\_460 | 0.112410584655363 |
| 97 | g\_\_Christensenellaceae\_R-7\_group\_Cluster\_481 | 0.173617334424944 |
| 98 | g\_\_Tuzzerella\_Cluster\_486 | 0.112410584655363 |
| 99 | g\_\_Eubacterium\_brachy\_group\_Cluster\_493 | 0.496291702231095 |
| 100 | g\_\_Family\_XIII\_UCG-001\_Cluster\_510 | 0.00319709944793456 |
| 101 | g\_\_Parabacteroides\_Cluster\_509 | 0.762368818469847 |
| 102 | g\_\_OEMS01\_Cluster\_516 | 0.939742989577085 |
| 103 | g\_\_Enterococcus\_Cluster\_527 | 0.226476066043488 |
| 104 | g\_\_Ruminococcaceae\_genus\_Cluster\_539 | 0.096303692028687 |
| 105 | g\_\_CAG-41\_Cluster\_540 | 0.65014744409486 |
| 106 | g\_\_GCA-900066575\_Cluster\_548 | 0.325751354478715 |
| 107 | g\_\_Eubacterium\_nodatum\_group\_Cluster\_546 | 0.939742989577085 |
| 108 | g\_\_Butyricicoccus\_Cluster\_565 | 0.289918453942572 |
| 109 | g\_\_Candidatus\_Stoquefichus\_Cluster\_619 | 0.879829160011815 |
| 110 | g\_\_Lachnospirales\_genus\_Cluster\_670 | 0.150926950066717 |
| 111 | g\_\_Clostridia\_genus\_Cluster\_693 | 0.596701216729351 |
| 112 | g\_\_Prevotellamassilia\_Cluster\_699 | 0.939742989577085 |
| 113 | g\_\_Eisenbergiella\_Cluster\_707 | 0.820595839755438 |
| 114 | g\_\_Stoquefichus\_Cluster\_717 | 0.364346126633552 |
| 115 | g\_\_Peptococcus\_Cluster\_722 | 0.496291702231095 |
| 116 | g\_\_CAG-56\_Cluster\_749 | 0.545349668011121 |
| 117 | g\_\_Candidatus\_Soleaferrea\_Cluster\_747 | 1 |
| 118 | g\_\_Eubacterium\_J\_Cluster\_775 | 0.325751354478715 |
| 119 | g\_\_Adlercreutzia\_Cluster\_789 | 1 |
| 120 | g\_\_CAG-508\_genus\_Cluster\_799 | 0.939742989577085 |
| 121 | g\_\_Prevotellaceae\_UCG-001\_Cluster\_803 | 0.879829160011815 |
| 122 | g\_\_Bacteria\_genus\_Cluster\_817 | 0.545349668011121 |
| 123 | g\_\_Candidatus\_Saccharimonas\_Cluster\_840 | 0.939742989577085 |
| 124 | g\_\_CAG-110\_Cluster\_871 | 0.325751354478715 |
| 125 | g\_\_Coprococcus\_Cluster\_875 | 0.879829160011815 |
| 126 | g\_\_Flavonifractor\_Cluster\_893 | 0.130570018115735 |
| 127 | g\_\_Staphylococcus\_Cluster\_902 | 0.496291702231095 |
| 128 | g\_\_Family\_XIII\_AD3011\_group\_Cluster\_948 | 0.596701216729351 |
| 129 | g\_\_QXXE01\_Cluster\_954 | 0.405678895285055 |
| 130 | g\_\_Christensenellaceae\_genus\_Cluster\_978 | 0.150926950066717 |
| 131 | g\_\_CAG-81\_Cluster\_999 | 0.496291702231095 |
| 132 | g\_\_MD308\_Cluster\_1054 | 0.596701216729351 |
| 133 | g\_\_Anaerovorax\_Cluster\_1050 | 0.449691797968892 |
| 134 | g\_\_An92\_Cluster\_1053 | 0.939742989577085 |
| 135 | g\_\_Parasutterella\_Cluster\_1044 | 0.820595839755438 |
| 136 | g\_\_Dysosmobacter\_Cluster\_1099 | 0.173617334424944 |
| 137 | g\_\_Oscillospirales\_genus\_Cluster\_1076 | 0.545349668011121 |
| 138 | g\_\_D16-34\_Cluster\_1121 | 0.405678895285055 |
| 139 | g\_\_Eubacterium\_hallii\_group\_Cluster\_1206 | 0.879829160011815 |
| 140 | g\_\_Angelakisella\_Cluster\_1290 | 0.545349668011121 |
| 141 | g\_\_Erysipelatoclostridiaceae\_genus\_Cluster\_1268 | 0.130570018115735 |
| 142 | g\_\_Desulfovibrio\_Cluster\_1285 | 0.939742989577085 |
| 143 | g\_\_Mediterraneibacter\_Cluster\_1304 | 0.198764606373234 |
| 144 | g\_\_UCG-010\_genus\_Cluster\_1319 | 0.150926950066717 |
| 145 | g\_\_Bilophila\_Cluster\_1307 | 0.70545698611127 |
| 146 | g\_\_Acetatifactor\_Cluster\_1361 | 0.130570018115735 |
| 147 | g\_\_Intestinimonas\_Cluster\_1355 | 0.364346126633552 |
| 148 | g\_\_Defluviitaleaceae\_genus\_Cluster\_1422 | 0.939742989577085 |
| 149 | g\_\_Allobaculum\_Cluster\_1858 | 0.762368818469847 |