

Pathway
PWY_6703__preQ0_biosynthesis_g_Veillonella_s_Veillonella_atypica
PWY_6700__queuosine_biosynthesis_g_Veillonella_s_Veillonella_atypica
PWY_5791__1,4_dihydroxy_2_naphthoate_biosynthesis_II_(plants)_g_Veillonella_s_Veillonella
PWY_5837__1,4_dihydroxy_2_naphthoate_biosynthesis_I_g_Veillonella_s_Veillonella_atypica
PWY_5686__UMP_biosynthesis_g_Veillonella_s_Veillonella_atypica
PWY_4242__pantothenate_and_coenzyme_A_biosynthesis_III_g_Veillonella_s_Veillonella_atyp
PWY_5100__pyruvate_fermentation_to_acetate_and_lactate_II_g_Veillonella_s_Veillonella_aty
PWY_7208__superpathway_of_pyrimidine_nucleobases_salvage_g_Veillonella_s_Veillonella_at
PWY_5686__UMP_biosynthesis_g_Bifidobacterium_s_Bifidobacterium_breve
PWY_5188__tetrapyrrole_biosynthesis_I_(from_glutamate)_g_Veillonella_s_Veillonella_atypica
PWY_6125__superpathway_of_guanosine_nucleotides_de_novo_biosynthesis_II_g_Veillonella_s
HEMESYN2_PWY__heme_biosynthesis_II_(anaerobic)_g_Veillonella_s_Veillonella_atypica
PWY_5097__L_lysine_biosynthesis_VI_g_Veillonella_s_Veillonella_atypica
PWY_7221__guanosine_ribonucleotides_de_novo_biosynthesis_g_Veillonella_s_Veillonella_aty
GLUTORN_PWY__L_ornithine_biosynthesis_g_Bifidobacterium_s_Bifidobacterium_breve
UNINTEGRATED_g_Veillonella_s_Veillonella_atypica
PWY_6121__5_aminoimidazole_ribonucleotide_biosynthesis_I_g_Veillonella_s_Veillonella_atyp
PWY_7219__adenosine_ribonucleotides_de_novo_biosynthesis_g_Bifidobacterium_s_Bifidobac
ARGSYNBSUB_PWY__L_arginine_biosynthesis_II_(acetyl_cycle)_g_Bifidobacterium_s_Bifidobact
PWY_7111__pyruvate_fermentation_to_isobutanol_(engineered)_g_Bifidobacterium_s_Bifidob:
PWY_7228__superpathway_of_guanosine_nucleotides_de_novo_biosynthesis_I_g_Veillonella_s
ARGSYN_PWY__L_arginine_biosynthesis_I_(via_L_ornithine)_g_Bifidobacterium_s_Bifidobacteri
PWY_7400__L_arginine_biosynthesis_IV_(archaeobacteria)_g_Bifidobacterium_s_Bifidobacteriun
PWY_7219__adenosine_ribonucleotides_de_novo_biosynthesis_g_Veillonella_s_Veillonella_aty
PWY_6387__UDP_N_acetylmuramoyl_pentapeptide_biosynthesis_I_(meso_diaminopimelate_cont
PWY_6126__superpathway_of_adenosine_nucleotides_de_novo_biosynthesis_II_g_Veillonella_s
PWY_6122__5_aminoimidazole_ribonucleotide_biosynthesis_II_g_Bifidobacterium_s_Bifidobact
PWY_6277__superpathway_of_5_aminoimidazole_ribonucleotide_biosynthesis_g_Bifidobacteriu
PWY_2942__L_lysine_biosynthesis_III_g_Veillonella_s_Veillonella_atypica
PEPTIDOLYCANSYN_PWY__peptidoglycan_biosynthesis_I_(meso_diaminopimelate_containing)_g
PWY_7229__superpathway_of_adenosine_nucleotides_de_novo_biosynthesis_I_g_Veillonella_s
PWY_7111__pyruvate_fermentation_to_isobutanol_(engineered)_g_Veillonella_s_Veillonella_a
VALSYN_PWY__L_valine_biosynthesis_g_Veillonella_s_Veillonella_atypica
PWY_6386__UDP_N_acetylmuramoyl_pentapeptide_biosynthesis_II_(lysine_containing)_g_Veillc
COA_PWY_1__coenzyme_A_biosynthesis_II_(mammalian)_g_Veillonella_s_Veillonella_atypica
UDPNAGSYN_PWY__UDP_N_acetyl_D_glucosamine_biosynthesis_I_g_Bifidobacterium_s_Bifido
HISTSYN_PWY__L_histidine_biosynthesis_g_Veillonella_s_Veillonella_atypica
PWY_6122__5_aminoimidazole_ribonucleotide_biosynthesis_II_g_Veillonella_s_Veillonella_aty
PWY_6277__superpathway_of_5_aminoimidazole_ribonucleotide_biosynthesis_g_Veillonella_s
PWY_7220__adenosine_deoxyribonucleotides_de_novo_biosynthesis_II_g_Veillonella_s_Veillor
PWY_7222__guanosine_deoxyribonucleotides_de_novo_biosynthesis_II_g_Veillonella_s_Veillor
PWY_6936__seleno_amino_acid_biosynthesis_g_Bifidobacterium_s_Bifidobacterium_breve
PWY_5913__TCA_cycle_VI_(obligate_autotrophs)_g_Escherichia_s_Escherichia_coli
RIBOSYN2_PWY__flavin_biosynthesis_I_(bacteria_and_plants)_g_Escherichia_s_Escherichia_coli
PWY_6123__inosine_5__phosphate_biosynthesis_I_g_Bifidobacterium_s_Bifidobacterium_brev
PWY_6151__S_adenosyl_L_methionine_cycle_I_g_Bifidobacterium_s_Bifidobacterium_breve

PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
 PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_7254\_\_TCA\_cycle\_VII\_(acetate\_producers)\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_\_Veillonella\_s\_\_Veillonella\_atypica  
 PWY\_6737\_\_starch\_degradation\_V\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Escherichi  
 PWY\_5103\_\_L\_isoleucine\_biosynthesis\_III\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_breve  
 PWY\_2723\_\_trehalose\_degradation\_V  
 PYRIDNUCSAL\_PWY\_\_NAD\_salvage\_pathway\_I\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_\_Bifidobacterium\_s\_\_Bifidobact  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_breve  
 PWY\_6353\_\_purine\_nucleotides\_degradation\_II\_(aerobic)\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 HEMESYN2\_PWY\_\_heme\_biosynthesis\_II\_(anaerobic)\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 GLUCUROCAT\_PWY\_\_superpathway\_of\_&beta\_\_D\_glucuronide\_and\_D\_glucuronate\_degradation\_  
 SULFATE\_CYS\_PWY\_\_superpathway\_of\_sulfate\_assimilation\_and\_cysteine\_biosynthesis\_g\_\_Esche  
 PYRIDNUCSYN\_PWY\_\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Bif  
 FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)\_g\_\_Eschericl  
 PWY\_5861\_\_superpathway\_of\_demethylmenaquinol\_8\_biosynthesis\_g\_\_Escherichia\_s\_\_Escheric  
 HCAMHPDEG\_PWY\_\_3\_phenylpropanoate\_and\_3\_(3\_hydroxyphenyl)propanoate\_degradation\_to\_  
 PWY\_6690\_\_cinnamate\_and\_3\_hydroxycinnamate\_degradation\_to\_2\_oxopent\_4\_enoate  
 PWY\_5863\_\_superpathway\_of\_phylloquinol\_biosynthesis\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 AEROBACTINSYN\_PWY\_\_aerobactin\_biosynthesis  
 AEROBACTINSYN\_PWY\_\_aerobactin\_biosynthesis\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N  
 UBISYN\_PWY\_\_superpathway\_of\_ubiquinol\_8\_biosynthesis\_(prokaryotic)\_g\_\_Escherichia\_s\_\_Esch  
 PANTOSYN\_PWY\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Escherichia  
 PWY\_7269\_\_NAD\_NADP\_NADH\_NADPH\_mitochondrial\_interconversion\_(yeast)  
 PWY\_6527\_\_stachyose\_degradation\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_6629\_\_superpathway\_of\_L\_tryptophan\_biosynthesis\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_6700\_\_queuosine\_biosynthesis\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_6507\_\_4\_deoxy\_L\_threo\_hex\_4\_enopyranuronate\_degradation\_g\_\_Escherichia\_s\_\_Escheric  
 SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Es  
 PWY\_7242\_\_D\_fructuronate\_degradation\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 UNINTEGRATED\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_breve  
 GLYCOLYSIS\_TCA\_GLYOX\_BYPASS\_\_superpathway\_of\_glycolysis,\_pyruvate\_dehydrogenase,\_TCA,\_  
 PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)\_g\_\_Escherichia\_s\_\_Esche  
 PWY\_5838\_\_superpathway\_of\_menaquinol\_8\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_5989\_\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_5173\_\_superpathway\_of\_acetyl\_CoA\_biosynthesis\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_7269\_\_NAD\_NADP\_NADH\_NADPH\_mitochondrial\_interconversion\_(yeast)\_g\_\_Escherichia\_s  
 PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_\_Escherichia\_s\_\_Escherichia\_cc  
 GALACT\_GLUCUROCAT\_PWY\_\_superpathway\_of\_hexuronide\_and\_hexuronate\_degradation\_g\_\_E  
 HCAMHPDEG\_PWY\_\_3\_phenylpropanoate\_and\_3\_(3\_hydroxyphenyl)propanoate\_degradation\_to\_  
 PWY\_6690\_\_cinnamate\_and\_3\_hydroxycinnamate\_degradation\_to\_2\_oxopent\_4\_enoate\_g\_\_Esch

PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Esche  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_6892\_\_thiazole\_biosynthesis\_I\_(E\_coli)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Escherichia\_s\_Es  
 PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_saturated\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5897\_\_superpathway\_of\_menaquinol\_11\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5898\_\_superpathway\_of\_menaquinol\_12\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5899\_\_superpathway\_of\_menaquinol\_13\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_Escherichia\_s\_\_  
 BIOTIN\_BIOSYNTHESIS\_PWY\_\_biotin\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_7409\_\_phospholipid\_remodeling\_(phosphatidylethanolamine,\_yeast)\_g\_Escherichia\_s\_Es  
 ECASYN\_PWY\_\_enterobacterial\_common\_antigen\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_cc  
 GALACTUROCAT\_PWY\_\_D\_galacturonate\_degradation\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_7664\_\_oleate\_biosynthesis\_IV\_(anaerobic)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY0\_1533\_\_methylphosphonate\_degradation\_I  
 MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Escherichia\_s\_E  
 METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_c  
 PWY\_6823\_\_molybdenum\_cofactor\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_g\_Escherichia\_s\_\_  
 PWY0\_1533\_\_methylphosphonate\_degradation\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 GLYCOLYSIS\_E\_D\_\_superpathway\_of\_glycolysis\_and\_Entner\_Doudoroff\_g\_Escherichia\_s\_Escher  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5791\_\_1,4\_dihydroxy\_2\_naphthoate\_biosynthesis\_II\_(plants)\_g\_Escherichia\_s\_Escherichia  
 PWY\_5837\_\_1,4\_dihydroxy\_2\_naphthoate\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5840\_\_superpathway\_of\_menaquinol\_7\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5845\_\_superpathway\_of\_menaquinol\_9\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5850\_\_superpathway\_of\_menaquinol\_6\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5896\_\_superpathway\_of\_menaquinol\_10\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_Escherichia\_s\_Escherichia\_coli  
 ECASYN\_PWY\_\_enterobacterial\_common\_antigen\_biosynthesis  
 PWY\_1042\_\_glycolysis\_IV\_(plant\_cytosol)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5860\_\_superpathway\_of\_demethylmenaquinol\_6\_biosynthesis\_I\_g\_Escherichia\_s\_Escheri  
 PWY\_5862\_\_superpathway\_of\_demethylmenaquinol\_9\_biosynthesis\_g\_Escherichia\_s\_Escheric  
 PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_con  
 PWY\_4041\_\_&gamma\_\_glutamyl\_cycle\_unclassified  
 ENTBACSYN\_PWY\_\_enterobactin\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_4702\_\_phytate\_degradation\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5083\_\_NAD\_NADH\_phosphorylation\_and\_dephosphorylation\_g\_Escherichia\_s\_Escherichia  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY0\_1061\_\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_6823\_\_molybdenum\_cofactor\_biosynthesis  
 PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_Escherichia\_s\_Escherichia\_coli  
 TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Escherichia\_s\_Escherichia\_coli

VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6630\_superpathway\_of\_L\_tyrosine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_7315\_dTDP\_N\_acetylthomosamine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
GLYCOGENSYNTH\_PWY\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Escherichia\_s\_Esc  
GLYCOLYSIS\_glycolysis\_I\_(from\_glucose\_6\_phosphate)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5188\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY0\_1586\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Escherichia\_s\_  
NAD\_BIOSYNTHESIS\_II\_NAD\_salvage\_pathway\_II\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5695\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Escherichia\_s\_Escheric  
PWY0\_1277\_3\_phenylpropanoate\_and\_3\_(3\_hydroxyphenyl)propanoate\_degradation\_g\_Escher  
PWY\_6628\_superpathway\_of\_L\_phenylalanine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Escherichia\_s\_  
THRESYN\_PWY\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
PHOSLIPSYN\_PWY\_superpathway\_of\_phospholipid\_biosynthesis\_I\_(bacteria)\_g\_Escherichia\_s\_  
PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6151\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_4242\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5855\_ubiquinol\_7\_biosynthesis\_(prokaryotic)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5856\_ubiquinol\_9\_biosynthesis\_(prokaryotic)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5857\_ubiquinol\_10\_biosynthesis\_(prokaryotic)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6708\_ubiquinol\_8\_biosynthesis\_(prokaryotic)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5484\_glycolysis\_II\_(from\_fructose\_6\_phosphate)\_g\_Escherichia\_s\_Escherichia\_coli  
HOMOSER\_METSYN\_PWY\_L\_methionine\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
SO4ASSIM\_PWY\_sulfate\_reduction\_I\_(assimilatory)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_7219\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_cc  
PWY\_7111\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Escherichia\_s\_Escherichia\_  
ARGSYN\_PWY\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_7388\_octanoyl\_[acyl\_carrier\_protein]\_biosynthesis\_(mitochondria, yeast)\_g\_Escherichia\_  
PWY0\_862\_(5Z)\_dodec\_5\_enoate\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6147\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Escherichia\_s\_Esc  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_cc  
AST\_PWY\_L\_arginine\_degradation\_II\_(AST\_pathway)  
KDO\_NAGLIPASYN\_PWY\_superpathway\_of\_(Kdo)2\_lipid\_A\_biosynthesis\_g\_Escherichia\_s\_Esch  
PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Escherichia\_s\_Escherichia\_coli  
PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Escherichia\_s\_Escherichia\_coli  
GLUTORN\_PWY\_L\_ornithine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
SALVADEHYPOX\_PWY\_adenosine\_nucleotides\_degradation\_II\_g\_Escherichia\_s\_Escherichia\_co  
PWY\_6608\_guanosine\_nucleotides\_degradation\_III\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_7409\_phospholipid\_remodeling\_(phosphatidylethanolamine, yeast)  
PWY\_4041\_&gamma\_glutamyl\_cycle\_g\_Escherichia\_s\_Escherichia\_coli  
GLYOXYLATE\_BYPASS\_glyoxylate\_cycle\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_7234\_inosine\_5\_phosphate\_biosynthesis\_III\_g\_Escherichia\_s\_Escherichia\_coli  
FUCCAT\_PWY\_fucose\_degradation\_g\_Escherichia\_s\_Escherichia\_coli  
PWY0\_1261\_anhydromuropeptides\_recycling\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5138\_unsaturated\_even\_numbered\_fatty\_acid\_&beta\_oxidation\_g\_Escherichia\_s\_Esch  
PWY\_6124\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_Escherichia\_s\_Escherichia\_coli  
HISTSYN\_PWY\_L\_histidine\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli

PWY\_5705\_allantoin\_degradation\_to\_glyoxylate\_III\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_2723\_trehalose\_degradation\_V\_g\_Escherichia\_s\_Escherichia\_coli  
 FUC\_RHAMCAT\_PWY\_superpathway\_of\_fucose\_and\_rhamnose\_degradation\_g\_Escherichia\_s\_  
 PWY\_5136\_fatty\_acid\_&beta\_oxidation\_II\_(peroxisome)\_g\_Escherichia\_s\_Escherichia\_coli  
 ANAGLYCOLYSIS\_PWY\_glycolysis\_III\_(from\_glucose)\_g\_Escherichia\_s\_Escherichia\_coli  
 TCA\_GLYOX\_BYPASS\_superpathway\_of\_glyoxylate\_bypass\_and\_TCA\_g\_Escherichia\_s\_Escheric  
 FAO\_PWY\_fatty\_acid\_&beta\_oxidation\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 GLYCOL\_GLYOXDEG\_PWY\_superpathway\_of\_glycol\_metabolism\_and\_degradation\_g\_Escherichi  
 PWY\_6969\_TCA\_cycle\_V\_(2\_oxoglutarate\_ferredoxin\_oxidoreductase)\_g\_Escherichia\_s\_Escher  
 P105\_PWY\_TCA\_cycle\_IV\_(2\_oxoglutarate\_decarboxylase)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY0\_1241\_ADP\_L\_glycero\_&beta\_D\_manno\_heptose\_biosynthesis\_g\_Escherichia\_s\_Escher  
 UDPNAGSYN\_PWY\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia  
 AST\_PWY\_L\_arginine\_degradation\_II\_(AST\_pathway)\_g\_Escherichia\_s\_Escherichia\_coli  
 POLYAMSYN\_PWY\_superpathway\_of\_polyamine\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_  
 PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY0\_1338\_polymyxin\_resistance  
 POLYISOPRENSYN\_PWY\_polyisoprenoid\_biosynthesis\_(E\_coli)\_g\_Escherichia\_s\_Escherichia\_c  
 PWY0\_1338\_polymyxin\_resistance\_g\_Escherichia\_s\_Escherichia\_coli  
 TCA\_TCA\_cycle\_I\_(prokaryotic)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_6936\_seleno\_amino\_acid\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_6612\_superpathway\_of\_tetrahydrofolate\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_7315\_dTDP\_N\_acetylthomosamine\_biosynthesis  
 PWY\_6859\_all\_trans\_farnesol\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_6897\_thiamin\_salvage\_II\_g\_Escherichia\_s\_Escherichia\_coli  
 ORNDEG\_PWY\_superpathway\_of\_ornithine\_degradation\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_5659\_GDP\_mannose\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
 ARGDEG\_PWY\_superpathway\_of\_L\_arginine\_putrescine\_and\_4\_aminobutanoate\_degradation\_  
 ORNARGDEG\_PWY\_superpathway\_of\_L\_arginine\_and\_L\_ornithine\_degradation\_g\_Escherichia\_  
 PWY4FS\_7\_phosphatidylglycerol\_biosynthesis\_I\_(plastidic)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY4FS\_8\_phosphatidylglycerol\_biosynthesis\_II\_(non\_plastidic)\_g\_Escherichia\_s\_Escherichia\_  
 PWY\_561\_superpathway\_of\_glyoxylate\_cycle\_and\_fatty\_acid\_degradation\_g\_Escherichia\_s\_Es  
 GALACTARDEG\_PWY\_D\_galactarate\_degradation\_I\_g\_Escherichia\_s\_Escherichia\_coli  
 GLUCARGALACTSUPER\_PWY\_superpathway\_of\_D\_glucarate\_and\_D\_galactarate\_degradation\_g\_  
 PWY\_6731\_starch\_degradation\_III  
 THRESYN\_PWY\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus\_v  
 PWY\_5690\_TCA\_cycle\_II\_(plants\_and\_fungi)\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY0\_1298\_superpathway\_of\_pyrimidine\_deoxyribonucleosides\_degradation\_g\_Escherichia\_s\_  
 FOLSYN\_PWY\_superpathway\_of\_tetrahydrofolate\_biosynthesis\_and\_salvage\_g\_Escherichia\_s\_  
 UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_reuteri  
 KDO\_NAGLIPASYN\_PWY\_superpathway\_of\_(Kdo)2\_lipid\_A\_biosynthesis  
 PWY0\_1277\_3\_phenylpropanoate\_and\_3\_(3\_hydroxyphenyl)propanoate\_degradation  
 ASPASN\_PWY\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_Escherichia\_s\_  
 PWY\_3841\_folate\_transformations\_II\_g\_Escherichia\_s\_Escherichia\_coli  
 UNINTEGRATED\_g\_Escherichia\_s\_Escherichia\_coli  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis

PWY\_5667\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
PWY0\_1319\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Escherichia\_s\_Escherichia\_coli  
COA\_PWY\_1\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Escherichia\_s\_Escherichia\_coli  
COBALSYN\_PWY\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6803\_phosphatidylcholine\_acyl\_editing\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6387\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_Escherichia\_s\_Escherichia\_coli  
RHAMCAT\_PWY\_L\_rhamnose\_degradation\_I\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5384\_sucrose\_degradation\_IV\_(sucrose\_phosphorylase)\_g\_Escherichia\_s\_Escherichia\_coli  
GLUCOSE1PMETAB\_PWY\_glucose\_and\_glucose\_1\_phosphate\_degradation\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_2941\_L\_lysine\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
PEPTIDOGLYCANSYN\_PWY\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
ORNDEG\_PWY\_superpathway\_of\_ornithine\_degradation  
PWY\_7357\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6891\_thiazole\_biosynthesis\_II\_(Bacillus)  
COA\_PWY\_coenzyme\_A\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6386\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
1CMET2\_PWY\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_2942\_L\_lysine\_biosynthesis\_III\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
PWY\_5973\_cis\_vaccenate\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
PWY\_724\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
NAGLIPASYN\_PWY\_lipid\_IVA\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli  
GLYCOL\_GLYOXDEG\_PWY\_superpathway\_of\_glycol\_metabolism\_and\_degradation  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
PWY\_7357\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_3841\_folate\_transformations\_II\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
METHGLYUT\_PWY\_superpathway\_of\_methylglyoxal\_degradation\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_6277\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_7013\_L\_1,2\_propanediol\_degradation  
PWY\_5173\_superpathway\_of\_acetyl\_CoA\_biosynthesis  
PWY\_6317\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_5686\_UMP\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
PWY\_7197\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_4041\_gamma\_glutamyl\_cycle  
COA\_PWY\_1\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
PWY\_5138\_unsaturated\_even\_numbered\_fatty\_acid\_beta\_oxidation  
PWY\_922\_mevalonate\_pathway\_I\_g\_Lactobacillus\_s\_Lactobacillus\_vaginalis  
PWY\_7220\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY0\_1241\_ADP\_L\_glycero\_beta\_D\_manno\_heptose\_biosynthesis  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6277\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_Escherichia\_s\_Escherichia\_coli

PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_5656\_\_mannosylglycerate\_biosynthesis\_I

PWY\_6545\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_III\_g\_\_Lactobacillus\_s\_\_Lactobacillus

KETOGLUCONMET\_PWY\_\_ketogluconate\_metabolism

PWY\_7210\_\_pyrimidine\_deoxyribonucleotides\_biosynthesis\_from\_CTP\_g\_\_Lactobacillus\_s\_\_Lactobacillus

COLANSYN\_PWY\_\_colanic\_acid\_building\_blocks\_biosynthesis\_g\_\_Escherichia\_s\_\_Escherichia\_coli

PWY\_7198\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_IV\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

PWY66\_422\_\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

PWY\_5083\_\_NAD\_NADH\_phosphorylation\_and\_dephosphorylation

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

GLUCARDEG\_PWY\_\_D\_glucarate\_degradation\_I\_g\_\_Escherichia\_s\_\_Escherichia\_coli

PWY\_5367\_\_petroselinate\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

PWY\_6859\_\_all\_trans\_farnesol\_biosynthesis

GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N\_acetylglucosamine

ARGDEG\_PWY\_\_superpathway\_of\_L\_arginine,\_putrescine,\_and\_4\_aminobutanoate\_degradation

ORNARGDEG\_PWY\_\_superpathway\_of\_L\_arginine\_and\_L\_ornithine\_degradation

UNINTEGRATED\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_johnsonii

PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

PWY\_3001\_\_superpathway\_of\_L\_isoleucine\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Escherichia\_coli

PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

PWY\_6629\_\_superpathway\_of\_L\_tryptophan\_biosynthesis

GLUCOSE1PMETAB\_PWY\_\_glucose\_and\_glucose\_1\_phosphate\_degradation

PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

UNINTEGRATED\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_helveticus

TCA\_GLYOX\_BYPASS\_\_superpathway\_of\_glyoxylate\_bypass\_and\_TCA

METHGLYUT\_PWY\_\_superpathway\_of\_methylglyoxal\_degradation

PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

GLYOXYLATE\_BYPASS\_\_glyoxylate\_cycle

PWY\_5723\_\_Rubisco\_shunt

PWY\_5860\_\_superpathway\_of\_demethylmenaquinol\_6\_biosynthesis\_I

PWY\_5862\_\_superpathway\_of\_demethylmenaquinol\_9\_biosynthesis

POLYISOPRENSYN\_PWY\_\_polyisoprenoid\_biosynthesis\_(E\_coli)

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Escherichia\_s\_\_Escherichia\_coli

PWY\_7254\_\_TCA\_cycle\_VII\_(acetate\_producers)

UNINTEGRATED\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

GLUCARDEG\_PWY\_\_D\_glucarate\_degradation\_I

UBISYN\_PWY\_\_superpathway\_of\_ubiquinol\_8\_biosynthesis\_(prokaryotic)

PWY\_7279\_\_aerobic\_respiration\_II\_(cytochrome\_c\_(yeast))

PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius

PWY\_6803\_\_phosphatidylcholine\_acyl\_editing

PWY0\_1415\_\_superpathway\_of\_heme\_biosynthesis\_from\_uroporphyrinogen\_III

PWY\_5705\_\_allantoin\_degradation\_to\_glyoxylate\_III

PWY\_5845\_\_superpathway\_of\_menaquinol\_9\_biosynthesis  
PWY\_5850\_\_superpathway\_of\_menaquinol\_6\_biosynthesis\_I  
PWY\_5896\_\_superpathway\_of\_menaquinol\_10\_biosynthesis  
GALACTARDEG\_PWY\_\_D\_galactarate\_degradation\_I  
GLUCARGALACTSUPER\_PWY\_\_superpathway\_of\_D\_glucarate\_and\_D\_galactarate\_degradation  
PWY\_5384\_\_sucrose\_degradation\_IV\_(sucrose\_phosphorylase)  
PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Lactobacillus  
PWY\_5973\_\_cis\_vaccenate\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_johnsonii  
PWY\_5103\_\_L\_isoleucine\_biosynthesis\_III\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Lactobacillus  
PWY\_922\_\_mevalonate\_pathway\_I  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_johr  
PWY\_5861\_\_superpathway\_of\_demethylmenaquinol\_8\_biosynthesis  
PWY\_3781\_\_aerobic\_respiration\_I\_(cytochrome\_c)  
PWY\_5910\_\_superpathway\_of\_geranylgeranyldiphosphate\_biosynthesis\_I\_(via\_mevalonate)  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_johnsonii  
GLYCOLYSIS\_TCA\_GLYOX\_BYPASS\_\_superpathway\_of\_glycolysis,\_pyruvate\_dehydrogenase,\_TCA,  
PWY\_5855\_\_ubiquinol\_7\_biosynthesis\_(prokaryotic)  
PWY\_5856\_\_ubiquinol\_9\_biosynthesis\_(prokaryotic)  
PWY\_5857\_\_ubiquinol\_10\_biosynthesis\_(prokaryotic)  
PWY\_6708\_\_ubiquinol\_8\_biosynthesis\_(prokaryotic)  
PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_\_Lactobacillus\_s\_\_Lactobacillu  
PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Lacto  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobaci  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reu  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_cont  
PWY\_5384\_\_sucrose\_degradation\_IV\_(sucrose\_phosphorylase)\_unclassified  
REDCITCYC\_TCA\_cycle\_VIII\_(helicobacter)  
P105\_PWY\_\_TCA\_cycle\_IV\_(2\_oxoglutarate\_decarboxylase)  
PWY\_5838\_\_superpathway\_of\_menaquinol\_8\_biosynthesis\_I  
PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Lactobacillus  
PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri  
PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_La  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri  
PWY\_6895\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_II  
PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Lactobacillus  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Lactobacillus\_s  
UNINTEGRATED\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_gasseri  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus  
PWY\_6859\_\_all\_trans\_farnesol\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri



PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_6892\_\_thiazole\_biosynthesis\_I\_(E\_coli)

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reut

PWY66\_422\_\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_re

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus

COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_5791\_\_1,4\_dihydroxy\_2\_naphthoate\_biosynthesis\_II\_(plants)

PWY\_5837\_\_1,4\_dihydroxy\_2\_naphthoate\_biosynthesis\_I

UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobaci

PWY\_841\_\_superpathway\_of\_purine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_L

UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobaci

PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_cont

PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_delbrueck

PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Lacto

PWY\_4981\_\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_helveticus

PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g

PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Lactobacillus

PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Lactobacillus

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_\_Lacto

PWY\_7446\_\_sulfoglycolysis

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_johnsonii

PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lact

PWY\_7222\_\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lact

PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_6630\_\_superpathway\_of\_L\_tyrosine\_biosynthesis

PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_johnso

PWY66\_422\_\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_jo

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_reuteri

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_gasseri

PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Lactobacillus

PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_\_Lactobacillus\_s\_\_Lactobacillu

PWY\_5913\_\_TCA\_cycle\_VI\_(obligate\_autotrophs)

PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Lactobacillus\_s\_\_Lactobacillus

UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobaci

PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus

UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus\_delbrueckii  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_unclassified  
CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus\_delbrueckii  
P163\_PWY\_\_L\_lysine\_fermentation\_to\_acetate\_and\_butanoate  
PWY\_7198\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_IV  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Lactobacillus\_s\_Lactobacillus\_dell  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus  
FERMENTATION\_PWY\_\_mixed\_acid\_fermentation  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Lactobacillus\_s\_Lactobacillus\_crispatus  
PWY\_5920\_\_superpathway\_of\_heme\_biosynthesis\_from\_glycine  
PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_Lactobacillus\_s\_Lactobacillus\_crispatus  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_Escherichia\_s\_Escherichia\_coli  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_delbrueckii  
PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_5154\_\_L\_arginine\_biosynthesis\_III\_(via\_N\_acetyl\_L\_citrulline)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_7392\_\_taxadiene\_biosynthesis\_(engineered)  
PWY\_6121\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_Lactobacillus\_s\_Lactobacillus\_crispatus  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus\_crispatus  
PWY\_4981\_\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Lactobacillus\_s\_Lactobacillus\_delbrueckii  
PWY\_6700\_\_queuosine\_biosynthesis\_g\_Sutterella\_s\_Sutterella\_wadsworthensis  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lactobacillus\_s\_Lactobacillus\_crispatus  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus  
DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_I\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_6122\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Lactobacillus\_s\_Lactobacillus\_crispatus  
PWY\_7117\_\_C4\_photosynthetic\_carbon\_assimilation\_cycle,\_PEPCK\_type  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_5973\_\_cis\_vaccenate\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus\_delbrueckii  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Lactobacillus\_s\_Lactobacillus\_delbrueckii  
PWY0\_1061\_\_superpathway\_of\_L\_alanine\_biosynthesis  
PWY\_7210\_\_pyrimidine\_deoxyribonucleotides\_biosynthesis\_from\_CTP  
GLYCOCAT\_PWY\_\_glycogen\_degradation\_I\_(bacterial)  
P161\_PWY\_\_acetylene\_degradation  
ARG+POLYAMINE\_SYN\_\_superpathway\_of\_arginine\_and\_polyamine\_biosynthesis\_g\_Escherichia\_coli  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_crispatus  
P4\_PWY\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_I\_g\_Escherichia\_coli  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lactobacillus\_s\_Lactobacillus\_helveticus  
ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_5863\_\_superpathway\_of\_phylloquinol\_biosynthesis  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lactobacillus\_s\_Lactobacillus\_brevianus

PWY\_724\_\_superpathway\_of\_L\_lysine\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Esche  
HEME\_BIOSYNTHESIS\_II\_\_heme\_biosynthesis\_I\_(aerobic)  
PWY0\_862\_\_(5Z)\_dodec\_5\_enoate\_biosynthesis  
NAGLIPASYN\_PWY\_\_lipid\_IVA\_biosynthesis  
PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus  
PWY\_5897\_\_superpathway\_of\_menaquinol\_11\_biosynthesis  
PWY\_5898\_\_superpathway\_of\_menaquinol\_12\_biosynthesis  
PWY\_5899\_\_superpathway\_of\_menaquinol\_13\_biosynthesis  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_brevis  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobaci  
PWY\_7388\_\_octanoyl\_[acyl\_carrier\_protein]\_biosynthesis\_(mitochondria,\_yeast)  
PWY\_7328\_\_superpathway\_of\_UDP\_glucose\_derived\_O\_antigen\_building\_blocks\_biosynthesis  
PWY\_5723\_\_Rubisco\_shunt\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis  
PWY\_7664\_\_oleate\_biosynthesis\_IV\_(anaerobic)  
HEMESYN2\_PWY\_\_heme\_biosynthesis\_II\_(anaerobic)  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Escherichia\_s\_E  
FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus  
FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_\_\_saturated  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Lactobacillus\_s  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobaci  
PWY\_7446\_\_sulfolglycolysis\_g\_Escherichia\_s\_Escherichia\_coli  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus\_brevis  
PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_Megasphaera\_s\_Megasphaera  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_Sutterella\_s\_Suttere  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus  
PWY\_7198\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_IV\_unclassified  
PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Megasphaera\_s\_Megasphaer  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Megasphaera  
HEMESYN2\_PWY\_\_heme\_biosynthesis\_II\_(anaerobic)\_g\_Sutterella\_s\_Sutterella\_wadsworthensi  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis  
PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Lactobacillus\_s\_Lactobacillus\_brevis  
ENTBACSYN\_PWY\_\_enterobactin\_biosynthesis  
PWY\_6897\_\_thiamin\_salvage\_II\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis  
PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Megasphaera\_s\_M  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Megasphaera\_s\_Megasphaera\_m  
PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)  
PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_Lactobacillus\_s\_Lactobacillus\_acidop  
PWY66\_422\_\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Lactobacillus\_s\_Lactobacillus\_ac  
PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Megasphaera\_s\_Megasphaer

PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)

PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Mega

PWY\_5384\_\_sucrose\_degradation\_IV\_(sucrose\_phosphorylase)\_g\_Lactobacillus\_s\_Lactobacillus

PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)

PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus

PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Lacto

PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_Megasphaera\_s

THISYN\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_I

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus

PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_Escherichia\_s

PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)

ANAEROFRUCAT\_PWY\_\_homolactic\_fermentation\_g\_Escherichia\_s\_Escherichia\_coli

PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Lactobacillus\_s

PWY\_5686\_\_UMP\_biosynthesis\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PWY\_561\_\_superpathway\_of\_glyoxylate\_cycle\_and\_fatty\_acid\_degradation

PWY4FS\_7\_\_phosphatidylglycerol\_biosynthesis\_I\_(plastidic)

PWY4FS\_8\_\_phosphatidylglycerol\_biosynthesis\_II\_(non\_plastidic)

PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus

VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

UNINTEGRATED\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g

PWY\_5918\_\_superpathway\_of\_heme\_biosynthesis\_from\_glutamate

PWY\_7210\_\_pyrimidine\_deoxyribonucleotides\_biosynthesis\_from\_CTP\_unclassified

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Lactobacillus\_s

PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)

PWY\_3841\_\_folate\_transformations\_II\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus

PWY\_5971\_\_palmitate\_biosynthesis\_II\_(bacteria\_and\_plants)

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Lactobacillus\_s\_Lactobacillus\_brevis

NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Lactobacillus\_s\_Lactobacillus

PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Lactobacillus\_s\_Lactobacillus

PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus

PWY\_6608\_\_guanosine\_nucleotides\_degradation\_III\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus

P125\_PWY\_\_superpathway\_of\_(R,R)\_butanediol\_biosynthesis

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinate\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PWY\_5840\_\_superpathway\_of\_menaquinol\_7\_biosynthesis

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus

PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Sutterella\_s

PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g

PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Megasphaera\_s\_Megasphaera\_micronuciformis

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Sutterella\_s

PWY\_7234\_\_inosine\_5\_phosphate\_biosynthesis\_III\_g\_Lactobacillus\_s\_Lactobacillus\_acidophilus

COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_\_Megasphaera\_s\_\_Megasphaera\_micronuciformis

PWY\_6122\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus

BIOTIN\_BIOSYNTHESIS\_PWY\_\_biotin\_biosynthesis\_I

PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

P122\_PWY\_\_heterolactic\_fermentation

PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Megasphaera\_s\_\_Megasphaera\_micronuciformis

FUC\_RHAMCAT\_PWY\_\_superpathway\_of\_fucose\_and\_rhamnose\_degradation

PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Megasphaera\_s\_\_Megasphaera\_micronuciformis

PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

OANTIGEN\_PWY\_\_O\_antigen\_building\_blocks\_biosynthesis\_(E\_coli)\_unclassified

PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Escherichia\_s\_\_Escherichia\_coli

PWY\_6123\_\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_acidophilus

PWY66\_400\_\_glycolysis\_VI\_(metazoan)

PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_\_Megasphaera\_s\_\_Megasphaera\_micronuciformis

GLYCOLYSIS\_\_glycolysis\_I\_(from\_glucose\_6\_phosphate)

PWY\_6285\_\_superpathway\_of\_fatty\_acids\_biosynthesis\_(E\_coli)

PWY0\_41\_\_allantoin\_degradation\_IV\_(anaerobic)

PWY\_6124\_\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_acidophilus

TEICHOICACID\_PWY\_\_teichoic\_acid\_(poly\_glycerol)\_biosynthesis

DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Escherichia\_coli

THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_acidophilus

NAD\_BIOSYNTHESIS\_II\_\_NAD\_salvage\_pathway\_II

PWY\_6628\_\_superpathway\_of\_L\_phenylalanine\_biosynthesis

PWY\_5484\_\_glycolysis\_II\_(from\_fructose\_6\_phosphate)

GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis

PWY66\_389\_\_phytol\_degradation

PHOSLIPSYN\_PWY\_\_superpathway\_of\_phospholipid\_biosynthesis\_I\_(bacteria)

UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I

PWYG\_321\_\_mycolate\_biosynthesis

PWY66\_409\_\_superpathway\_of\_purine\_nucleotide\_salvage\_g\_\_Escherichia\_s\_\_Escherichia\_coli

PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

PWY\_7222\_\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

PWY0\_321\_\_phenylacetate\_degradation\_I\_(aerobic)

SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)

ORNDEG\_PWY\_\_superpathway\_of\_ornithine\_degradation\_unclassified

PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

NAGLIPASYN\_PWY\_\_lipid\_IVA\_biosynthesis\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

GOLPDLICAT\_PWY\_\_superpathway\_of\_glycerol\_degradation\_to\_1,3\_propanediol

LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_unclassified

PWY\_841\_\_superpathway\_of\_purine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Escherichia\_coli

ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)

PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii

METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_acidophilus

PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius  
GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N  
P441\_PWY\_\_superpathway\_of\_N\_acetylneuraminate\_degradation  
UNINTEGRATED\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthensis  
HEXITOLDEGSUPER\_PWY\_\_superpathway\_of\_hexitol\_degradation\_(bacteria)  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Escherichia\_s  
PWY\_6901\_\_superpathway\_of\_glucose\_and\_xylose\_degradation\_g\_\_Escherichia\_s\_\_Escherichia\_c  
PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Sutterella\_s\_\_Sutterella\_wads  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_Esche  
PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Sutterella\_s\_\_Sutterella\_wads  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Sutterella\_s\_\_  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Escherichia\_s\_\_Esche  
PWY\_7222\_\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Escherichia\_s\_\_Esche  
PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Sutterella\_s\_\_  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_  
PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Sutterella\_s\_\_  
PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Escherichia\_s\_\_  
PWY\_6628\_\_superpathway\_of\_L\_phenylalanine\_biosynthesis\_unclassified  
P23\_PWY\_\_reductive\_TCA\_cycle\_I  
PWY\_6284\_\_superpathway\_of\_unsaturated\_fatty\_acids\_biosynthesis\_(E\_coli)  
PWY0\_162\_\_superpathway\_of\_pyrimidine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Escherichia  
PWY\_7204\_\_pyridoxal\_5\_\_phosphate\_salvage\_II\_(plants)  
GLYCOLYSIS\_E\_D\_\_superpathway\_of\_glycolysis\_and\_Entner\_Doudoroff  
PWY\_6595\_\_superpathway\_of\_guanosine\_nucleotides\_degradation\_(plants)  
PWY\_6936\_\_seleno\_amino\_acid\_biosynthesis\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_salivarius  
PWY0\_1298\_\_superpathway\_of\_pyrimidine\_deoxyribonucleosides\_degradation  
PWY\_3781\_\_aerobic\_respiration\_I\_(cytochrome\_c)\_unclassified  
HEMESYN2\_PWY\_\_heme\_biosynthesis\_II\_(anaerobic)\_unclassified  
PWY\_5083\_\_NAD\_NADH\_phosphorylation\_and\_dephosphorylation\_unclassified  
PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Rothia\_s\_\_Rothia\_mucilaginos  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Rothia\_s\_\_Rot  
PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Escherichia\_s  
SULFATE\_CYS\_PWY\_\_superpathway\_of\_sulfate\_assimilation\_and\_cysteine\_biosynthesis  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation  
PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Sutterella\_s\_\_Sutterella\_wads  
PWY66\_409\_\_superpathway\_of\_purine\_nucleotide\_salvage  
HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_vagir  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I  
ANAEROFRUCAT\_PWY\_\_homolactic\_fermentation  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_\_Escherichia\_s\_\_Escherichia\_c  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage  
PWY\_5675\_\_nitrate\_reduction\_V\_(assimilatory)  
PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I  
PWY0\_1261\_\_anhydromuropeptides\_recycling  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II

PWY\_7222\_\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II  
 PWY4FS\_7\_\_phosphatidylglycerol\_biosynthesis\_I\_(plastidic)\_unclassified  
 PWY4FS\_8\_\_phosphatidylglycerol\_biosynthesis\_II\_(non\_plastidic)\_unclassified  
 PWY\_6901\_\_superpathway\_of\_glucose\_and\_xylose\_degradation  
 PENTOSE\_P\_PWY\_\_pentose\_phosphate\_pathway\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_6803\_\_phosphatidylcholine\_acyl\_editing\_unclassified  
 PWY\_2941\_\_L\_lysine\_biosynthesis\_II  
 PWY\_6606\_\_guanosine\_nucleotides\_degradation\_II  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii  
 GLUCONEO\_PWY\_\_gluconeogenesis\_I  
 PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)  
 PWY66\_409\_\_superpathway\_of\_purine\_nucleotide\_salvage\_unclassified  
 PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III  
 P185\_PWY\_\_formaldehyde\_assimilation\_III\_(dihydroxyacetone\_cycle)  
 PWY\_5941\_\_glycogen\_degradation\_II\_(eukaryotic)  
 GLUCARDEG\_PWY\_\_D\_glucarate\_degradation\_I\_unclassified  
 PWY\_5005\_\_biotin\_biosynthesis\_II  
 PWY\_5154\_\_L\_arginine\_biosynthesis\_III\_(via\_N\_acetyl\_L\_citrulline)  
 PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)  
 GALACTARDEG\_PWY\_\_D\_galactarate\_degradation\_I\_unclassified  
 GLUCARGALACTSUPER\_PWY\_\_superpathway\_of\_D\_glucarate\_and\_D\_galactarate\_degradation\_unclassified  
 PWY\_6936\_\_seleno\_amino\_acid\_biosynthesis  
 PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II  
 PWY\_7560\_\_methylerythritol\_phosphate\_pathway\_II  
 PWY\_5121\_\_superpathway\_of\_geranylgeranyl\_diphosphate\_biosynthesis\_II\_(via\_MEP)  
 PWY\_922\_\_mevalonate\_pathway\_I\_unclassified  
 PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)  
 PWY\_3841\_\_folate\_transformations\_II\_unclassified  
 PWY\_841\_\_superpathway\_of\_purine\_nucleotides\_de\_novo\_biosynthesis\_I  
 DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_I  
 PWY\_6897\_\_thiamin\_salvage\_II\_unclassified  
 PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I  
 GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_unclassified  
 PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_unclassified  
 PWY\_7388\_\_octanoyl\_[acyl\_carrier\_protein]\_biosynthesis\_(mitochondria,\_yeast)\_unclassified  
 PHOSLIPSYN\_PWY\_\_superpathway\_of\_phospholipid\_biosynthesis\_I\_(bacteria)\_unclassified  
 FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)\_unclassified  
 PWY\_5791\_\_1,4\_dihydroxy\_2\_naphthoate\_biosynthesis\_II\_(plants)\_unclassified  
 PWY\_5837\_\_1,4\_dihydroxy\_2\_naphthoate\_biosynthesis\_I\_unclassified  
 PWY0\_862\_\_(5Z)\_dodec\_5\_enoate\_biosynthesis\_unclassified  
 PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II  
 PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Rothia\_mucilaginosa  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Sutterella\_s\_\_Sutterella\_wadsworthii  
 UNINTEGRATED\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_7664\_\_oleate\_biosynthesis\_IV\_(anaerobic)\_unclassified

ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)  
 PPGPPMET\_PWY\_\_ppGpp\_biosynthesis  
 PWY\_3841\_\_folate\_transformations\_II  
 FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_\_saturated\_unclassified  
 PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_5675\_\_nitrate\_reduction\_V\_(assimilatory)\_unclassified  
 PWY0\_1241\_\_ADP\_L\_glycero\_&beta\_\_D\_manno\_heptose\_biosynthesis\_unclassified  
 PWY\_4981\_\_L\_proline\_biosynthesis\_II\_(from\_arginine)  
 PWY\_6270\_\_isoprene\_biosynthesis\_I  
 PWY\_6121\_\_5\_aminoimidazole\_ribose\_nucleotide\_biosynthesis\_I\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)\_unclassified  
 PWY\_6531\_\_mannitol\_cycle  
 PWY\_6612\_\_superpathway\_of\_tetrahydrofolate\_biosynthesis  
 PWY\_5973\_\_cis\_vaccenate\_biosynthesis  
 PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)  
 PWY\_7219\_\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 FUCCAT\_PWY\_\_fucose\_degradation  
 OANTIGEN\_PWY\_\_O\_antigen\_building\_blocks\_biosynthesis\_(E\_coli)  
 PWY\_7279\_\_aerobic\_respiration\_II\_(cytochrome\_c\_(yeast))\_unclassified  
 PWY\_6737\_\_starch\_degradation\_V\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
 FOLSYN\_PWY\_\_superpathway\_of\_tetrahydrofolate\_biosynthesis\_and\_salvage  
 PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I  
 PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II  
 P461\_PWY\_\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate  
 P461\_PWY\_\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_unclassified  
 PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III  
 PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_5723\_\_Rubisco\_shunt\_unclassified  
 PWY490\_3\_\_nitrate\_reduction\_VI\_(assimilatory)  
 PWY\_6606\_\_guanosine\_nucleotides\_degradation\_II\_g\_\_Escherichia\_s\_\_Escherichia\_coli  
 PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_5971\_\_palmitate\_biosynthesis\_II\_(bacteria\_and\_plants)\_unclassified  
 PWY\_7039\_\_phosphatidate\_metabolism,as\_a\_signaling\_molecule  
 PWY\_6353\_\_purine\_nucleotides\_degradation\_II\_(aerobic)  
 BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Bif  
 PWY\_6471\_\_peptidoglycan\_biosynthesis\_IV\_(Enterococcus\_faecium)\_unclassified  
 3\_HYDROXYPHENYLACETATE\_DEGRADATION\_PWY\_\_4\_hydroxyphenylacetate\_degradation  
 LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I  
 PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_7221\_\_guanosine\_ribose\_nucleotides\_de\_novo\_biosynthesis  
 COLANSYN\_PWY\_\_colanic\_acid\_building\_blocks\_biosynthesis  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Rothia\_s\_\_Rothia\_mucilaginosa  
 PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_unclassified  
 PWY\_7222\_\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_unclassified



UNINTEGRATED\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_longum  
 PWY\_5103\_\_L\_isoleucine\_biosynthesis\_III\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_longum  
 PWY\_5154\_\_L\_arginine\_biosynthesis\_III\_(via\_N\_acetyl\_L\_citrulline)\_unclassified  
 1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis  
 PWY\_6876\_\_isopropanol\_biosynthesis  
 COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I  
 FAO\_PWY\_\_fatty\_acid\_&beta\_oxidation\_I  
 RIBOSYN2\_PWY\_\_flavin\_biosynthesis\_I\_(bacteria\_and\_plants)  
 PWY\_5690\_\_TCA\_cycle\_II\_(plants\_and\_fungi)  
 PWY\_5676\_\_acetyl\_CoA\_fermentation\_to\_butanoate\_II  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis  
 PWY\_6608\_\_guanosine\_nucleotides\_degradation\_III  
 PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Lactococcus\_s\_\_Lactococcus  
 DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium  
 PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)  
 PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Actinomyces\_s\_\_Actinomyces  
 ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_longum  
 PWY\_4702\_\_phytate\_degradation\_I  
 PWY\_5863\_\_superpathway\_of\_phylloquinol\_biosynthesis\_unclassified  
 PENTOSE\_P\_PWY\_\_pentose\_phosphate\_pathway  
 PWYG\_321\_\_mycolate\_biosynthesis\_unclassified  
 PWY\_6936\_\_seleno\_amino\_acid\_biosynthesis\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
 GLYOXYLATE\_BYPASS\_\_glyoxylate\_cycle\_unclassified  
 ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)  
 TCA\_GLYOX\_BYPASS\_\_superpathway\_of\_glyoxylate\_bypass\_and\_TCA\_unclassified  
 PWY\_5913\_\_TCA\_cycle\_VI\_(obligate\_autotrophs)\_unclassified  
 PWY\_2942\_\_L\_lysine\_biosynthesis\_III  
 P221\_PWY\_\_octane\_oxidation  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis  
 PWY\_5136\_\_fatty\_acid\_&beta\_oxidation\_II\_(peroxisome)  
 UNINTEGRATED  
 LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
 SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainfluenzae  
 PYRIDNUCSAL\_PWY\_\_NAD\_salvage\_pathway\_I\_unclassified  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)  
 PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage  
 NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_I\_g\_\_Actinomyces\_s\_\_Actinomyces\_groenlandicus  
 PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis  
 PWY66\_389\_\_phytol\_degradation\_unclassified  
 PWY\_5692\_\_allantoin\_degradation\_to\_glyoxylate\_II  
 URDEGR\_PWY\_\_superpathway\_of\_allantoin\_degradation\_in\_plants  
 PWY\_6969\_\_TCA\_cycle\_V\_(2\_oxoglutarate\_ferredoxin\_oxidoreductase)  
 PWY\_7117\_\_C4\_photosynthetic\_carbon\_assimilation\_cycle,\_PEPCK\_type\_unclassified  
 GLYCOLYSIS\_TCA\_GLYOX\_BYPASS\_\_superpathway\_of\_glycolysis,\_pyruvate\_dehydrogenase,\_TCA,\_1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_unclassified  
 PWY\_5989\_\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)

P221\_PWY\_\_octane\_oxidation\_unclassified  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bifidobacterium\_s\_\_Bifidobacteriu  
PWY\_5103\_\_L\_isoleucine\_biosynthesis\_III\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Lac  
PWY\_6318\_\_L\_phenylalanine\_degradation\_IV\_(mammalian,\_via\_side\_chain)  
PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainfluenz  
PWY\_6318\_\_L\_phenylalanine\_degradation\_IV\_(mammalian,\_via\_side\_chain)\_unclassified  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_\_Bifidobacterium\_s\_\_Bifido  
TCA\_\_TCA\_cycle\_I\_(prokaryotic)  
PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_unclassified  
PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_unclassified  
DENOVOPURINE2\_PWY\_\_superpathway\_of\_purine\_nucleotides\_de\_novo\_biosynthesis\_II  
ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_unclassified  
PWY\_5686\_\_UMP\_biosynthesis  
PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_5973\_\_cis\_vaccenate\_biosynthesis\_unclassified  
PWY\_6700\_\_queuosine\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_caccae  
PWY\_5910\_\_superpathway\_of\_geranylgeranyldiphosphate\_biosynthesis\_I\_(via\_mevalonate)\_uncl  
PWY\_5897\_\_superpathway\_of\_menaquinol\_11\_biosynthesis\_unclassified  
PWY\_5898\_\_superpathway\_of\_menaquinol\_12\_biosynthesis\_unclassified  
PWY\_5899\_\_superpathway\_of\_menaquinol\_13\_biosynthesis\_unclassified  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI  
PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)  
PWY\_4981\_\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Bacteroides\_s\_\_Bacteroides\_caccae  
PWY\_6113\_\_superpathway\_of\_mycolate\_biosynthesis  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_caccae  
PWY\_6123\_\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_longi  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)  
PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_\_Lactococcus\_s\_\_L  
PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Bifidobacterium\_s\_\_Bifidobact  
PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Bifidobacterium\_s\_\_Bifidobact  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Bifidobacteriu  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Actinomyces\_s\_\_Actinomyces  
PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_con  
UNINTEGRATED\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainfluenzae  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_caccae  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Actinomyces\_s\_\_Actinomyce  
VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Actinomyces\_s\_\_Actinomyces\_graevenitzi  
UNINTEGRATED\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis

PWY\_5667\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY0\_1319\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_6151\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Bifidobacterium\_s\_Bifidobacterium\_longum  
 COA\_PWY\_1\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_7219\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_c  
 PWY\_621\_sucrose\_degradation\_III\_(sucrose\_invertase)  
 PWY\_5100\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Lactococcus\_s\_Lactococcus\_l  
 PWY\_6147\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I  
 RHAMCAT\_PWY\_L\_rhamnose\_degradation\_I\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_724\_superpathway\_of\_L\_lysine\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II  
 PWY\_5686\_UMP\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_7400\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_unclassified  
 PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_6892\_thiazole\_biosynthesis\_I\_(E\_coli)\_unclassified  
 ARGSYNBSUB\_PWY\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Bifidobacterium\_s\_Bifidobact  
 PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_c  
 NAGLIPASYN\_PWY\_lipid\_IVA\_biosynthesis\_g\_Haemophilus\_s\_Haemophilus\_parainfluenzae  
 PWY\_7039\_phosphatidate\_metabolism\_as\_a\_signaling\_molecule\_g\_Escherichia\_s\_Escherichia  
 HOMOSER\_METSYN\_PWY\_L\_methionine\_biosynthesis\_I\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 PWY\_5973\_cis\_vaccenate\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 DTDPRHAMSYN\_PWY\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_5695\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Bacteroides\_s\_Bacteroides\_c  
 PWY\_7111\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Bifidobacterium\_s\_Bifidobact  
 ARGININE\_SYN4\_PWY\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 GLUTORN\_PWY\_L\_ornithine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_longum  
 DAPLYSINESYN\_PWY\_L\_lysine\_biosynthesis\_I\_g\_Haemophilus\_s\_Haemophilus\_parainfluenzae  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_7115\_C4\_photosynthetic\_carbon\_assimilation\_cycle,\_NAD\_ME\_type  
 PWY\_7111\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Bacteroides\_s\_Bacteroides\_c  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 THRESYN\_PWY\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Actinomyces\_s\_Actinomyces\_g  
 PWY\_5686\_UMP\_biosynthesis\_g\_Actinomyces\_s\_Actinomyces\_graevenitzii  
 PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)  
 PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II  
 PWY\_6277\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis  
 HISTSYN\_PWY\_L\_histidine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_longum  
 PWY\_5345\_superpathway\_of\_L\_methionine\_biosynthesis\_(by\_sulfhydrylation)  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 ARGSYN\_PWY\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Bifidobacterium\_s\_Bifidobacteri  
 PWY\_7400\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Bifidobacterium\_s\_Bifidobacterium  
 UNINTEGRATED\_g\_Adlercreutzia\_s\_Adlercreutzia\_equolifaciens  
 UNINTEGRATED\_g\_Akkermansia\_s\_Akkermansia\_muciniphila  
 UNINTEGRATED\_g\_Alistipes\_s\_Alistipes\_finegoldii  
 UNINTEGRATED\_g\_Alistipes\_s\_Alistipes\_indistinctus  
 UNINTEGRATED\_g\_Alistipes\_s\_Alistipes\_onderdonkii  
 UNINTEGRATED\_g\_Alistipes\_s\_Alistipes\_putredinis  
 UNINTEGRATED\_g\_Alistipes\_s\_Alistipes\_senegalensis

UNINTEGRATED_g_Alistipes_s_Alistipes_shahii
UNINTEGRATED_g_Alistipes_s_Alistipes_sp_HGB5
UNINTEGRATED_g_Anaerofustis_s_Anaerofustis_stercorihominis
UNINTEGRATED_g_Anaerostipes_s_Anaerostipes_hadrus
UNINTEGRATED_g_Anaerotruncus_s_Anaerotruncus_colihominis
UNINTEGRATED_g_Bacteroides_s_Bacteroides_cellulosilyticus
UNINTEGRATED_g_Bacteroides_s_Bacteroides_clarus
UNINTEGRATED_g_Bacteroides_s_Bacteroides_coprocola
UNINTEGRATED_g_Bacteroides_s_Bacteroides_dorei
UNINTEGRATED_g_Bacteroides_s_Bacteroides_eggerthii
UNINTEGRATED_g_Bacteroides_s_Bacteroides_faecis
UNINTEGRATED_g_Bacteroides_s_Bacteroides_finegoldii
UNINTEGRATED_g_Bacteroides_s_Bacteroides_intestinalis
UNINTEGRATED_g_Bacteroides_s_Bacteroides_massiliensis
UNINTEGRATED_g_Bacteroides_s_Bacteroides_ovatus
UNINTEGRATED_g_Bacteroides_s_Bacteroides_plebeius
UNINTEGRATED_g_Bacteroides_s_Bacteroides_salysiae
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_1_1_30
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_1_1_6
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_2_1_22
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_2_2_4
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_3_1_19
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_3_1_23
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_3_1_33FAA
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_3_1_40A
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_4_3_47FAA
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_9_1_42FAA
UNINTEGRATED_g_Bacteroides_s_Bacteroides_sp_D20
UNINTEGRATED_g_Bacteroides_s_Bacteroides_stercoris
UNINTEGRATED_g_Bacteroides_s_Bacteroides_thetaiotaomicron
UNINTEGRATED_g_Bacteroides_s_Bacteroides_uniformis
UNINTEGRATED_g_Bacteroides_s_Bacteroides_xylanisolvans
UNINTEGRATED_g_Barnesiella_s_Barnesiella_intestinihominis
UNINTEGRATED_g_Bifidobacterium_s_Bifidobacterium_angulatum
UNINTEGRATED_g_Bifidobacterium_s_Bifidobacterium_animalis
UNINTEGRATED_g_Bifidobacterium_s_Bifidobacterium_bifidum
UNINTEGRATED_g_Bifidobacterium_s_Bifidobacterium_catenulatum
UNINTEGRATED_g_Bifidobacterium_s_Bifidobacterium_dentium
UNINTEGRATED_g_Bifidobacterium_s_Bifidobacterium_pseudocatenulatum
UNINTEGRATED_g_Bilophila_s_Bilophila_wadsworthia
UNINTEGRATED_g_Blautia_s_Blautia_hydrogenotrophica
UNINTEGRATED_g_Blautia_s_Blautia_sp_KLE_1732
UNINTEGRATED_g_Blautia_s_Ruminococcus_gnavus
UNINTEGRATED_g_Blautia_s_Ruminococcus_obeum
UNINTEGRATED_g_Burkholderiales_noname_s_Burkholderiales_bacterium_1_1_47
UNINTEGRATED_g_Butyrvibrio_s_Butyrvibrio_crossotus
UNINTEGRATED_g_Catenibacterium_s_Catenibacterium_mitsuokai

UNINTEGRATED_g_Citrobacter_s_Citrobacter_freundii
UNINTEGRATED_g_Clostridiales_noname_s_Bacteroides_pectinophilus
UNINTEGRATED_g_Clostridiales_noname_s_Clostridiales_bacterium_1_7_47FAA
UNINTEGRATED_g_Clostridium_s_Clostridium_asparagiforme
UNINTEGRATED_g_Clostridium_s_Clostridium_bolteae
UNINTEGRATED_g_Clostridium_s_Clostridium_citroniae
UNINTEGRATED_g_Clostridium_s_Clostridium_clostridioforme
UNINTEGRATED_g_Clostridium_s_Clostridium_hathewayi
UNINTEGRATED_g_Clostridium_s_Clostridium_leptum
UNINTEGRATED_g_Clostridium_s_Clostridium_perfringens
UNINTEGRATED_g_Clostridium_s_Clostridium_sp_L2_50
UNINTEGRATED_g_Clostridium_s_Clostridium_sp_SS2_1
UNINTEGRATED_g_Clostridium_s_Clostridium_symbiosum
UNINTEGRATED_g_Collinsella_s_Collinsella_intestinalis
UNINTEGRATED_g_Collinsella_s_Collinsella_tanakaei
UNINTEGRATED_g_Coprobacter_s_Coprobacter_fastidiosus
UNINTEGRATED_g_Coprococcus_s_Coprococcus_catus
UNINTEGRATED_g_Coprococcus_s_Coprococcus_eutactus
UNINTEGRATED_g_Coprococcus_s_Coprococcus_sp_ART55_1
UNINTEGRATED_g_Dialister_s_Dialister_invisus
UNINTEGRATED_g_Dorea_s_Dorea_formicigenerans
UNINTEGRATED_g_Eggerthella_s_Eggerthella_lenta
UNINTEGRATED_g_Eggerthella_s_Eggerthella_sp_1_3_56FAA
UNINTEGRATED_g_Eggerthella_s_Eggerthella_sp_HGA1
UNINTEGRATED_g_Enterobacter_s_Enterobacter_cloacae
UNINTEGRATED_g_Enterococcus_s_Enterococcus_durans
UNINTEGRATED_g_Enterococcus_s_Enterococcus_faecalis
UNINTEGRATED_g_Enterococcus_s_Enterococcus_faecium
UNINTEGRATED_g_Enterorhabdus_s_Enterorhabdus_caecimuris
UNINTEGRATED_g_Erysipelotrichaceae_noname_s_Clostridium_spiroforme
UNINTEGRATED_g_Erysipelotrichaceae_noname_s_Erysipelotrichaceae_bacterium_21_3
UNINTEGRATED_g_Erysipelotrichaceae_noname_s_Erysipelotrichaceae_bacterium_2_2_44A
UNINTEGRATED_g_Erysipelotrichaceae_noname_s_Eubacterium_biforme
UNINTEGRATED_g_Erysipelotrichaceae_noname_s_Eubacterium_cylindroides
UNINTEGRATED_g_Eubacterium_s_Eubacterium_eligens
UNINTEGRATED_g_Eubacterium_s_Eubacterium_hallii
UNINTEGRATED_g_Eubacterium_s_Eubacterium_ramulus
UNINTEGRATED_g_Eubacterium_s_Eubacterium_siraeum
UNINTEGRATED_g_Eubacterium_s_Eubacterium_sp_3_1_31
UNINTEGRATED_g_Eubacterium_s_Eubacterium_ventriosum
UNINTEGRATED_g_Fusobacterium_s_Fusobacterium_nucleatum
UNINTEGRATED_g_Gemella_s_Gemella_sanguinis
UNINTEGRATED_g_Gordonibacter_s_Gordonibacter_pamelaeae
UNINTEGRATED_g_Holdemania_s_Holdemania_filiformis
UNINTEGRATED_g_Klebsiella_s_Klebsiella_pneumoniae
UNINTEGRATED_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacterium_1_1_57FAA
UNINTEGRATED_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacterium_1_4_56FAA

UNINTEGRATED\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacterium\_2\_1\_58FAA  
UNINTEGRATED\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacterium\_3\_1\_46FAA  
UNINTEGRATED\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacterium\_3\_1\_57FAA\_CT1  
UNINTEGRATED\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacterium\_5\_1\_63FAA  
UNINTEGRATED\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacterium\_7\_1\_58FAA  
UNINTEGRATED\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacterium\_9\_1\_43BFAA  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_casei\_paracasei  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_fermentum  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_rhamnosus  
UNINTEGRATED\_g\_Lactobacillus\_s\_Lactobacillus\_ruminis  
UNINTEGRATED\_g\_Nakaseomyces\_s\_Candida\_glabrata  
UNINTEGRATED\_g\_Odoribacter\_s\_Odoribacter\_laneus  
UNINTEGRATED\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus  
UNINTEGRATED\_g\_Oxalobacter\_s\_Oxalobacter\_formigenes  
UNINTEGRATED\_g\_Parabacteroides\_s\_Parabacteroides\_distasonis  
UNINTEGRATED\_g\_Parabacteroides\_s\_Parabacteroides\_goldsteinii  
UNINTEGRATED\_g\_Parabacteroides\_s\_Parabacteroides\_johnsonii  
UNINTEGRATED\_g\_Parabacteroides\_s\_Parabacteroides\_merdae  
UNINTEGRATED\_g\_Parabacteroides\_s\_Parabacteroides\_sp\_20\_3  
UNINTEGRATED\_g\_Parabacteroides\_s\_Parabacteroides\_sp\_D13  
UNINTEGRATED\_g\_Paraprevotella\_s\_Paraprevotella\_clara  
UNINTEGRATED\_g\_Paraprevotella\_s\_Paraprevotella\_xylaniphila  
UNINTEGRATED\_g\_Parasutterella\_s\_Parasutterella\_excrementihominis  
UNINTEGRATED\_g\_Pediococcus\_s\_Pediococcus\_acidilactici  
UNINTEGRATED\_g\_Pediococcus\_s\_Pediococcus\_lolii  
UNINTEGRATED\_g\_Peptostreptococcaceae\_noname\_s\_Clostridium\_bartlettii  
UNINTEGRATED\_g\_Phascolarctobacterium\_s\_Phascolarctobacterium\_succinatutens  
UNINTEGRATED\_g\_Prevotella\_s\_Prevotella\_copri  
UNINTEGRATED\_g\_Propionibacterium\_s\_Propionibacterium\_freudenreichii  
UNINTEGRATED\_g\_Roseburia\_s\_Roseburia\_hominis  
UNINTEGRATED\_g\_Roseburia\_s\_Roseburia\_inulinivorans  
UNINTEGRATED\_g\_Ruminococcaceae\_noname\_s\_Ruminococcaceae\_bacterium\_D16  
UNINTEGRATED\_g\_Ruminococcus\_s\_Ruminococcus\_callidus  
UNINTEGRATED\_g\_Ruminococcus\_s\_Ruminococcus\_champanellensis  
UNINTEGRATED\_g\_Ruminococcus\_s\_Ruminococcus\_sp  
UNINTEGRATED\_g\_Ruminococcus\_s\_Ruminococcus\_sp\_JC304  
UNINTEGRATED\_g\_Slackia\_s\_Slackia\_piriformis  
UNINTEGRATED\_g\_Solobacterium\_s\_Solobacterium\_moorei  
UNINTEGRATED\_g\_Streptococcus\_s\_Streptococcus\_australis  
UNINTEGRATED\_g\_Streptococcus\_s\_Streptococcus\_mitis\_oralis\_pneumoniae  
UNINTEGRATED\_g\_Streptococcus\_s\_Streptococcus\_sanguinis  
UNINTEGRATED\_g\_Subdoligranulum\_s\_Subdoligranulum\_sp\_4\_3\_54A2FAA  
UNINTEGRATED\_g\_Veillonella\_s\_Veillonella\_dispar  
UNINTEGRATED\_g\_Veillonella\_s\_Veillonella\_parvula  
1CMET2\_PWY\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_Akkermansia\_s\_Akkermansia\_m  
1CMET2\_PWY\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_cellu  
1CMET2\_PWY\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_claru

1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_copr  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_faeci  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_fineg  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_fragil  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_intes  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_mass  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovati  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_D  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sterc  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_theta  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_unifc  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylar  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Citrobacter\_s\_\_Citrobacter\_freunc  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumon  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides  
1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides  
3\_HYDROXYPHENYLACETATE\_DEGRADATION\_PWY\_\_4\_hydroxyphenylacetate\_degradation\_g\_\_Esc  
ALL\_CHORISMATE\_PWY\_\_superpathway\_of\_chorismate\_metabolism  
ALLANTOINDEG\_PWY\_\_superpathway\_of\_allantoin\_degradation\_in\_yeast  
ALLANTOINDEG\_PWY\_\_superpathway\_of\_allantoin\_degradation\_in\_yeast\_unclassified  
ANAEROFrucAT\_PWY\_\_homolactic\_fermentation\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Alistipes\_s\_\_Alistipes\_senegalensis  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Alistipes\_s\_\_Alistipes\_shahii  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatus  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_30  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_1\_22  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_2\_4  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_23  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylanisolve  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Fusobacterium\_s\_\_Fusobacterium\_nucle  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Odoribacter\_s\_\_Odoribacter\_splanchnic  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Pediococcus\_s\_\_Pediococcus\_acidilactici  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Pediococcus\_s\_\_Pediococcus\_lolii  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Streptococcus\_s\_\_Streptococcus\_austral  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Streptococcus\_s\_\_Streptococcus\_mitis\_c

ARGDEG\_PWY\_\_superpathway\_of\_L\_arginine,\_putrescine,\_and\_4\_aminobutanoate\_degradation  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_cell  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_clar  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_faec  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_fine  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_inte  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_mas  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_ova  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_saly  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_1  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_2  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_4  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_5  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_6  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_7  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_8  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_9  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_10  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_11  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_12  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_13  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_14  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_15  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_16  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_17  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_18  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_19  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_20  
 ARGORNPROST\_PWY\_\_arginine,\_ornithine\_and\_proline\_interconversion\_g\_Enterococcus\_s\_Ent  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Burkholderiales\_noname\_s\_Bur  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Citrobacter\_s\_Citrobacter\_freur  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Coprococcus\_s\_Coprococcus\_ca  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Eubacterium\_s\_Eubacterium\_sir  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Klebsiella\_s\_Klebsiella\_pneumo  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Lactococcus\_s\_Lactococcus\_lact  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Oxalobacter\_s\_Oxalobacter\_fori  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Parasutterella\_s\_Parasutterella  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Ruminococcus\_s\_Ruminococcus  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Veillonella\_s\_Veillonella\_dispar  
 ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_Veillonella\_s\_Veillonella\_parvul  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Burkholderiales\_noname\_s\_E  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Coprococcus\_s\_Coprococcus  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Eubacterium\_s\_Eubacterium  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Lactococcus\_s\_Lactococcus\_la  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Oxalobacter\_s\_Oxalobacter\_f  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Parasutterella\_s\_Parasutere  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_Ruminococcus\_s\_Ruminococ  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Akkermansia\_s\_Akkermansia\_muciniphila  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_finegoldii  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_sp\_HGB5  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Anaerotruncus\_s\_Anaerotruncus\_colihominis  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_gnavus  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_obeum



ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Burkholderiales\_noname\_s\_\_Burkholderiales\_bacteriu  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Butyrivibrio\_s\_\_Butyrivibrio\_crossotus  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Clostridiales\_noname\_s\_\_Clostridiales\_bacterium\_1\_7  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Clostridium\_s\_\_Clostridium\_asparagiforme  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Clostridium\_s\_\_Clostridium\_bolteae  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Clostridium\_s\_\_Clostridium\_clostridioforme  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Clostridium\_s\_\_Clostridium\_hathewayi  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_L2\_50  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_1  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Clostridium\_s\_\_Clostridium\_symbiosum  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Dorea\_s\_\_Dorea\_formicigenerans  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Erysipelotrichaceae\_noname\_s\_\_Eubacterium\_biforme  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_eligens  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_siraeum  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_ventriosum  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacter  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacter  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacter  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacter  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Parasutterella\_s\_\_Parasutterella\_excrementihominis  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Peptostreptococcaceae\_noname\_s\_\_Clostridium\_bartl  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Phascolarctobacterium\_s\_\_Phascolarctobacterium\_suc  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Propionibacterium\_s\_\_Propionibacterium\_freudenreic  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Roseburia\_s\_\_Roseburia\_hominis  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Roseburia\_s\_\_Roseburia\_inulinivorans  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_champanellensis  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Bacteroides\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Citrobacter\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Enterobacter  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Lactobacillus  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Odoribacter\_s  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Propionibacter  
 AST\_PWY\_\_L\_arginine\_degradation\_II\_(AST\_pathway)\_unclassified  
 BIOTIN\_BIOSYNTHESIS\_PWY\_\_biotin\_biosynthesis\_I\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii

BIOTIN\_BIOSYNTHESIS\_PWY\_\_biotin\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_painfluenzae

BIOTIN\_BIOSYNTHESIS\_PWY\_\_biotin\_biosynthesis\_I\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Akkermansia\_s\_\_Akkermansia\_muciniphila

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Blautia\_s\_\_Blautia\_oxofermentans

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Blautia\_s\_\_Blautia\_oxofermentans

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_thermophilum

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_thermophilum

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_thermophilum

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Eubacterium\_s\_\_Eubacterium\_thermophilum

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Fusobacterium\_s\_\_Fusobacterium\_nucleatum

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Odoribacter\_s\_\_Odoribacter\_splanchnicus

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Odoribacter\_s\_\_Odoribacter\_splanchnicus

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Primeria\_s\_\_Primeria\_oxofermentans

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_torques

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilus

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilus

BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Sulfolobus\_s\_\_Sulfolobus\_solfataricus

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Blautia\_s\_\_Blautia\_oxofermentans

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Clostridium\_s\_\_Clostridium\_asparagiforme

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_1

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Coprotherobacter\_s\_\_Coprotherobacter\_aurantiacus

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Fusobacterium\_s\_\_Fusobacterium\_nucleatum

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_rhamnosus

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Odoribacter\_s\_\_Odoribacter\_splanchnicus

CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Peptostreptococcaceae\_noname\_s\_\_Clostridium

CATECHOL\_ORTHO\_CLEAVAGE\_PWY\_\_catechol\_degradation\_to\_beta\_ketoadipate

CENTFERM\_PWY\_\_pyruvate\_fermentation\_to\_butanoate\_unclassified

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Actinomyces\_s\_\_Actinomyces\_gracilis

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Adlercreutzia\_s\_\_Adlercreutzia\_equisetorum

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Akkermansia\_s\_\_Akkermansia\_muciniphila

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Alistipes\_s\_\_Alistipes\_finegoldii

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Alistipes\_s\_\_Alistipes\_indistinctus

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Alistipes\_s\_\_Alistipes\_putredinis

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Anaerofustis\_s\_\_Anaerofustis\_sterilis

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Anaerotruncus\_s\_\_Anaerotruncus\_anaerobutylicus

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_cellulosilyticus

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_coprotherobacter

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_dorei  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_egger  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_faecis  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_finegc  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_intesti  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatu  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_salyer  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_4\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_9\_\_  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_D2  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_thetai  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_unifor  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylani  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Barnesiella\_s\_\_Barnesiella\_intestin  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bifidobacterium\_s\_\_Bifidobacteriur  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bifidobacterium\_s\_\_Bifidobacteriur  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bifidobacterium\_s\_\_Bifidobacteriur  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bifidobacterium\_s\_\_Bifidobacteriur  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Bifidobacterium\_s\_\_Bifidobacteriur  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Blautia\_s\_\_Blautia\_hydrogenotropl  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Blautia\_s\_\_Ruminococcus\_gnavus  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Butyrivibrio\_s\_\_Butyrivibrio\_crossc  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundi  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Clostridiales\_noname\_s\_\_Clostridia  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Clostridium\_s\_\_Clostridium\_boltea  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Clostridium\_s\_\_Clostridium\_citroni  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Clostridium\_s\_\_Clostridium\_clostri  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Clostridium\_s\_\_Clostridium\_hathev  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Clostridium\_s\_\_Clostridium\_leptun  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Clostridium\_s\_\_Clostridium\_perfrir  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Collinsella\_s\_\_Collinsella\_intestinal  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Collinsella\_s\_\_Collinsella\_tanakaei  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Copro bacter\_s\_\_Copro bacter\_fastid  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Copro coccus\_s\_\_Copro coccus\_catu  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Copro coccus\_s\_\_Copro coccus\_euta

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Dialister\_s\_Dialister\_invisus  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Dorea\_s\_Dorea\_formicigenerans  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eggerthella\_s\_Eggerthella\_lenta  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eggerthella\_s\_Eggerthella\_sp\_1\_3  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eggerthella\_s\_Eggerthella\_sp\_HG  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Enterococcus\_s\_Enterococcus\_fae  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Enterococcus\_s\_Enterococcus\_fae  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Erysipelotrichaceae\_noname\_s\_Cl  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Erysipelotrichaceae\_noname\_s\_Er  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Erysipelotrichaceae\_noname\_s\_Er  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Erysipelotrichaceae\_noname\_s\_Eu  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eubacterium\_s\_Eubacterium\_elige  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eubacterium\_s\_Eubacterium\_halli  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eubacterium\_s\_Eubacterium\_sira  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eubacterium\_s\_Eubacterium\_sp\_3  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eubacterium\_s\_Eubacterium\_vent  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Fusobacterium\_s\_Fusobacterium  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Gemella\_s\_Gemella\_sanguinis  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Gordonibacter\_s\_Gordonibacter\_I  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Holdemania\_s\_Holdemania\_filifor  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Klebsiella\_s\_Klebsiella\_pneumoni  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lachnospiraceae\_noname\_s\_Lach  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lachnospiraceae\_noname\_s\_Lach  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lachnospiraceae\_noname\_s\_Lach  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lachnospiraceae\_noname\_s\_Lach  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lachnospiraceae\_noname\_s\_Lach  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lachnospiraceae\_noname\_s\_Lach  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lachnospiraceae\_noname\_s\_Lach  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lachnospiraceae\_noname\_s\_Lach  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lactobacillus\_s\_Lactobacillus\_case  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Lactobacillus\_s\_Lactobacillus\_fern  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Odoribacter\_s\_Odoribacter\_laneu  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Odoribacter\_s\_Odoribacter\_splan  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Oxalobacter\_s\_Oxalobacter\_formi  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Parabacteroides\_s\_Parabacteroid  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Parabacteroides\_s\_Parabacteroid  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Parabacteroides\_s\_Parabacteroid  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Parabacteroides\_s\_Parabacteroid  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Parabacteroides\_s\_Parabacteroid  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Parabacteroides\_s\_Parabacteroid  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Parabacteroides\_s\_Parabacteroid  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Paraprevotella\_s\_Paraprevotella  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Parasutterella\_s\_Parasutterella\_e  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Pediococcus\_s\_Pediococcus\_acidil  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Pediococcus\_s\_Pediococcus\_lolii  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Peptostreptococcaceae\_noname\_s  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Phascalactobacterium\_s\_Phascal  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Roseburia\_s\_Roseburia\_hominis

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Roseburia\_s\_Roseburia\_inulinivor  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Rothia\_s\_Rothia\_mucilaginoso  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Ruminococcus\_s\_Ruminococcus\_c  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Ruminococcus\_s\_Ruminococcus\_l  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Ruminococcus\_s\_Ruminococcus\_s  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Slackia\_s\_Slackia\_piriformis  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Streptococcus\_s\_Streptococcus\_ar  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Streptococcus\_s\_Streptococcus\_r  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Subdoligranulum\_s\_Subdoligranul  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Veillonella\_s\_Veillonella\_dispar  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Veillonella\_s\_Veillonella\_parvula  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Akkermansia\_s\_Akkermansia\_muciniphila  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Anaerofustis\_s\_Anaerofustis\_stercorihominis  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Anaerotruncus\_s\_Anaerotruncus\_colihominis  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_ovatus  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Bifidobacterium\_s\_Bifidobacterium\_dentium  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Citrobacter\_s\_Citrobacter\_freundii  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Clostridiales\_noname\_s\_Clostridiales\_bacterium\_1  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Coprococcus\_s\_Coprococcus\_eutactus  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Eggerthella\_s\_Eggerthella\_lenta  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Eggerthella\_s\_Eggerthella\_sp\_1\_3\_56FAA  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Eggerthella\_s\_Eggerthella\_sp\_HGA1  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Enterococcus\_s\_Enterococcus\_faecium  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Erysipelotrichaceae\_noname\_s\_Clostridium\_spirofo  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Eubacterium\_s\_Eubacterium\_ventriosum  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bact  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Oxalobacter\_s\_Oxalobacter\_formigenes  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Pediococcus\_s\_Pediococcus\_acidilactici  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Pediococcus\_s\_Pediococcus\_lolii  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Phascalactobacterium\_s\_Phascalactobacterium\_s  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus\_australis  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus\_mitis\_oralis\_pneum  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Veillonella\_s\_Veillonella\_dispar  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Veillonella\_s\_Veillonella\_parvula  
COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_g\_Blautia\_s\_Blautia\_sp\_KLF  
COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_g\_Blautia\_s\_Ruminococcus  
COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_g\_Citrobacter\_s\_Citrobacte  
COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_g\_Coprococcus\_s\_Coprococ  
COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_g\_Phascalactobacterium\_s

COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_l\_g\_\_Roseburia\_s\_\_Roseburia\_i  
COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_l\_g\_\_Ruminococcus\_s\_\_Ruminc  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Akkermansia\_s  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Anaerostipes\_s  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Bacteroides\_s  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Blautia\_s\_\_Blau  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Blautia\_s\_\_Run  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Blautia\_s\_\_Run  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Butyrivibrio\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Citrobacter\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridiales\_n  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Clostridium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Eubacterium\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Klebsiella\_s\_\_K  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Lachnospiracea  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Lachnospiracea  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Lachnospiracea  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Lachnospiracea  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Lactococcus\_s\_\_  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Phascolarctoba  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Propionibacteri  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Roseburia\_s\_\_F  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Ruminococcus\_\_  
DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_l\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_animalis  
DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_l\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_l\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_l\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_l\_g\_\_Oxalobacter\_s\_\_Oxalobacter\_formigenes  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Alistipes\_s\_\_Alistipes\_shahii  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_had  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bacteroides\_s\_\_Bacteroides\_finego  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bacteroides\_s\_\_Bacteroides\_fragilis  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatus  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_\_  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_\_  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_\_  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_\_  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylanis  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Bifidobacterium\_s\_\_Bifidobacteriun  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum

DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Blautia\_s\_Ruminococcus\_torques  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_aspara  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_clostric  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_sp\_L2\_  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_sp\_SS2  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Coprococcus\_s\_Coprococcus\_catu:  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Eggerthella\_s\_Eggerthella\_lenta  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Eggerthella\_s\_Eggerthella\_sp\_1\_3  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Eggerthella\_s\_Eggerthella\_sp\_HG/  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Enterococcus\_s\_Enterococcus\_fae  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Erysipelotrichaceae\_noname\_s\_Eu  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Fusobacterium\_s\_Fusobacterium\_  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Lachnospiraceae\_noname\_s\_Lachr  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Odoribacter\_s\_Odoribacter\_splanc  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Oxalobacter\_s\_Oxalobacter\_formi  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Propionibacterium\_s\_Propionibact  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Roseburia\_s\_Roseburia\_intestinali  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Ruminococcus\_s\_Ruminococcus\_c  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Ruminococcus\_s\_Ruminococcus\_s  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_l\_g\_Streptococcus\_s\_Streptococcus\_a  
ECASYN\_PWY\_\_enterobacterial\_common\_antigen\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_fr  
ECASYN\_PWY\_\_enterobacterial\_common\_antigen\_biosynthesis\_unclassified  
ENTBACSYN\_PWY\_\_enterobactin\_biosynthesis\_unclassified  
FAO\_PWY\_\_fatty\_acid\_&beta\_oxidation\_l\_g\_Citrobacter\_s\_Citrobacter\_freundii  
FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_\_\_saturated\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_  
FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_\_\_saturated\_g\_Bacteroides\_s\_Bacteroides\_xylan  
FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_\_\_saturated\_g\_Citrobacter\_s\_Citrobacter\_freunc  
FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_\_\_saturated\_g\_Enterobacter\_s\_Enterobacter\_clo  
FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_\_\_saturated\_g\_Haemophilus\_s\_Haemophilus\_pa  
FASYN\_ELONG\_PWY\_\_fatty\_acid\_elongation\_\_\_\_saturated\_g\_Klebsiella\_s\_Klebsiella\_pneumon  
FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)\_g\_Bacteroi  
FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)\_g\_Bacteroi  
FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)\_g\_Citrobac  
FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)\_g\_Klebsiell  
FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)\_g\_Streptoc  
FERMENTATION\_PWY\_\_mixed\_acid\_fermentation\_g\_Citrobacter\_s\_Citrobacter\_freundii  
FOLSYN\_PWY\_\_superpathway\_of\_tetrahydrofolate\_biosynthesis\_and\_salvage\_g\_Lactococcus\_s\_  
FUC\_RHAMCAT\_PWY\_\_superpathway\_of\_fucose\_and\_rhamnose\_degradation\_g\_Citrobacter\_s\_  
FUCCAT\_PWY\_\_fucose\_degradation\_g\_Citrobacter\_s\_Citrobacter\_freundii  
FUCCAT\_PWY\_\_fucose\_degradation\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
GALACTARDEG\_PWY\_\_D\_galactarate\_degradation\_l\_g\_Citrobacter\_s\_Citrobacter\_freundii  
GALACTARDEG\_PWY\_\_D\_galactarate\_degradation\_l\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
GALACTARDEG\_PWY\_\_D\_galactarate\_degradation\_l\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
GALACTUROCAT\_PWY\_\_D\_galacturonate\_degradation\_l\_g\_Alistipes\_s\_Alistipes\_shahii  
GALACTUROCAT\_PWY\_\_D\_galacturonate\_degradation\_l\_g\_Citrobacter\_s\_Citrobacter\_freundii  
GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N  
GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N

GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N  
GLUCARDEG\_PWY\_\_D\_glucarate\_degradation\_I\_g\_Citrobacter\_s\_Citrobacter\_freundii  
GLUCARDEG\_PWY\_\_D\_glucarate\_degradation\_I\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
GLUCARGALACTSUPER\_PWY\_\_superpathway\_of\_D\_glucarate\_and\_D\_galactarate\_degradation\_g\_  
GLUCARGALACTSUPER\_PWY\_\_superpathway\_of\_D\_glucarate\_and\_D\_galactarate\_degradation\_g\_  
GLUCARGALACTSUPER\_PWY\_\_superpathway\_of\_D\_glucarate\_and\_D\_galactarate\_degradation\_g\_  
GLUCONEO\_PWY\_\_gluconeogenesis\_I\_g\_Citrobacter\_s\_Citrobacter\_freundii  
GLUCONEO\_PWY\_\_gluconeogenesis\_I\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
GLUCOSE1PMETAB\_PWY\_\_glucose\_and\_glucose\_1\_phosphate\_degradation\_g\_Klebsiella\_s\_Kle  
GLUCOSE1PMETAB\_PWY\_\_glucose\_and\_glucose\_1\_phosphate\_degradation\_unclassified  
GLUDEG\_I\_PWY\_\_GABA\_shunt\_unclassified  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Burkholderiales\_noname\_s\_Burkholderiales\_bact  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_catus  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium\_siraeum  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Oxalobacter\_s\_Oxalobacter\_formigenes  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Parasutterella\_s\_Parasutterella\_excrementihomi  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_champanellensis  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_dispar  
GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_parvula  
GLYCOCAT\_PWY\_\_glycogen\_degradation\_I\_(bacterial)\_unclassified  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Anaerostipes\_s\_A  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Blautia\_s\_Blautia  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Blautia\_s\_Ruminc  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Citrobacter\_s\_Cit  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Clostridium\_s\_Clo  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Coprococcus\_s\_C  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Coprococcus\_s\_C  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Coprococcus\_s\_C  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Enterobacter\_s\_E  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Erysipelotrichacea  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Eubacterium\_s\_Ei  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Fusobacterium\_s\_  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Klebsiella\_s\_Kleb  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Lachnospiraceae\_n  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Lactobacillus\_s\_Li  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Ruminococcus\_s\_  
GLYCOL\_GLYOXDEG\_PWY\_\_superpathway\_of\_glycol\_metabolism\_and\_degradation\_unclassified  
GLYCOLYSIS\_E\_D\_\_superpathway\_of\_glycolysis\_and\_Entner\_Doudoroff\_g\_Citrobacter\_s\_Citrob  
GLYCOLYSIS\_TCA\_GLYOX\_BYPASS\_\_superpathway\_of\_glycolysis,\_pyruvate\_dehydrogenase,\_TCA,  
GLYCOLYSIS\_glycolysis\_I\_(from\_glucose\_6\_phosphate)\_g\_Citrobacter\_s\_Citrobacter\_freundii  
GLYCOLYSIS\_glycolysis\_I\_(from\_glucose\_6\_phosphate)\_g\_Lactococcus\_s\_Lactococcus\_lactis  
GLYOXYLATE\_BYPASS\_glyoxylate\_cycle\_g\_Citrobacter\_s\_Citrobacter\_freundii  
GLYOXYLATE\_BYPASS\_glyoxylate\_cycle\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
GLYOXYLATE\_BYPASS\_glyoxylate\_cycle\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
GLYOXYLATE\_BYPASS\_glyoxylate\_cycle\_g\_Nakaseomyces\_s\_Candida\_glabrata



GOLPDL CAT\_PWY\_\_superpathway\_of\_glycerol\_degradation\_to\_1,3\_propanediol\_g\_Citrobacter\_s

GOLPDL CAT\_PWY\_\_superpathway\_of\_glycerol\_degradation\_to\_1,3\_propanediol\_g\_Escherichia\_s

GOLPDL CAT\_PWY\_\_superpathway\_of\_glycerol\_degradation\_to\_1,3\_propanediol\_g\_Klebsiella\_s

GOLPDL CAT\_PWY\_\_superpathway\_of\_glycerol\_degradation\_to\_1,3\_propanediol\_g\_Streptococcu

HCAMHPDEG\_PWY\_\_3\_phenylpropanoate\_and\_3\_(3\_hydroxyphenyl)propanoate\_degradation\_to

HCAMHPDEG\_PWY\_\_3\_phenylpropanoate\_and\_3\_(3\_hydroxyphenyl)propanoate\_degradation\_to

HEME\_BIOSYNTHESIS\_II\_heme\_biosynthesis\_I\_(aerobic)\_g\_Citrobacter\_s\_Citrobacter\_freundii

HEME\_BIOSYNTHESIS\_II\_heme\_biosynthesis\_I\_(aerobic)\_g\_Enterobacter\_s\_Enterobacter\_cloac

HEME\_BIOSYNTHESIS\_II\_heme\_biosynthesis\_I\_(aerobic)\_g\_Propionibacterium\_s\_Propionibact

HEME\_BIOSYNTHESIS\_II\_heme\_biosynthesis\_I\_(aerobic)\_g\_Veillonella\_s\_Veillonella\_dispar

HEME\_BIOSYNTHESIS\_II\_heme\_biosynthesis\_I\_(aerobic)\_unclassified

HEMESYN2\_PWY\_\_heme\_biosynthesis\_II\_(anaerobic)\_g\_Enterobacter\_s\_Enterobacter\_cloacae

HEXITOLDEGSUPER\_PWY\_\_superpathway\_of\_hexitol\_degradation\_(bacteria)\_g\_Citrobacter\_s\_C

HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_Alistipes\_s\_Alistipes\_shahii

HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_Citrobacter\_s\_Citrobacter\_freundii

HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_Clostridium\_s\_Clostridium\_symbiosum

HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_Enterobacter\_s\_Enterobacter\_cloacae

HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_Fusobacterium\_s\_Fusobacterium\_nucleatum

HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_Streptococcus\_s\_Streptococcus\_australis

HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_Streptococcus\_s\_Streptococcus\_sanguinis

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_faecis

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaomicron

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_bifidum

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_dentium

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_pseudocatenul

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Burkholderiales\_noname\_s\_Burkholderiales\_bacter

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Collinsella\_s\_Collinsella\_tanakaei

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium\_siraeum

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bact

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bact

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus\_casei\_paracasei

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus\_fermentum

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_lactis

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Parasutterella\_s\_Parasutterella\_excrementihominis

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Ruminococcaceae\_noname\_s\_Ruminococcaceae\_ba

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_champanellensis

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_dispar

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_parvula

HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_Anaerostipes\_s\_Anaerostipes\_hadr

HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_

HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_Coprococcus\_s\_Coprococcus\_catus

HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_Enterobacter\_s\_Enterobacter\_cloac  
HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_Klebsiella\_s\_Klebsiella\_pneumonia  
HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_Lachnospiraceae\_noname\_s\_Lachn  
HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus\_mi  
HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus\_sai  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Akkermansia\_s\_Akkermansia  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Anaerofustis\_s\_Anaerofustis\_  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Blautia\_s\_Blautia\_sp\_KLE\_17:  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Blautia\_s\_Ruminococcus\_obe  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Clostridium\_s\_Clostridium\_as  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Clostridium\_s\_Clostridium\_le  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Coprococcus\_s\_Coprococcus\_  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Coprococcus\_s\_Coprococcus\_  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Coprococcus\_s\_Coprococcus\_  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Eubacterium\_s\_Eubacterium\_  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Fusobacterium\_s\_Fusobacteri  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Odoribacter\_s\_Odoribacter\_la  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Odoribacter\_s\_Odoribacter\_s  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Propionibacterium\_s\_Propion  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Ruminococcus\_s\_Ruminococc  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Streptococcus\_s\_Streptococc  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Streptococcus\_s\_Streptococc  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Streptococcus\_s\_Streptococc  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Subdoligranulum\_s\_Subdoligr  
KETOGLUCONMET\_PWY\_\_ketogluconate\_metabolism\_g\_Escherichia\_s\_Escherichia\_coli  
KETOGLUCONMET\_PWY\_\_ketogluconate\_metabolism\_unclassified  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Enterococcus\_s\_Enterococcus\_du  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Enterococcus\_s\_Enterococcus\_fae  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Lactobacillus\_s\_Lactobacillus\_cas  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Lactobacillus\_s\_Lactobacillus\_rha  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Lactobacillus\_s\_Lactobacillus\_rur  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Streptococcus\_s\_Streptococcus\_a  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Streptococcus\_s\_Streptococcus\_n  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Streptococcus\_s\_Streptococcus\_s  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_Streptococcus\_s\_Streptococcus\_s  
LIPASYN\_PWY\_\_phospholipases  
MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Anaerostipes\_s\_  
MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Clostridium\_s\_(  
MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Enterobacter\_s\_  
MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Klebsiella\_s\_Kle  
MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Lachnospiraceae  
MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Lactococcus\_s\_  
MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Streptococcus\_s\_  
METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_Anaerostipes\_s\_Anaerostipe  
METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_s  
METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_Enterobacter\_s\_Enterobacte  
METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneu

METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_\_Lachnospiraceae\_noname\_s\_\_  
METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_\_Lactococcus\_s\_\_Lactococcus\_\_  
METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococ  
NAD\_BIOSYNTHESIS\_II\_\_NAD\_salvage\_pathway\_II\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
NAD\_BIOSYNTHESIS\_II\_\_NAD\_salvage\_pathway\_II\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
NAD\_BIOSYNTHESIS\_II\_\_NAD\_salvage\_pathway\_II\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
NAD\_BIOSYNTHESIS\_II\_\_NAD\_salvage\_pathway\_II\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
NAD\_BIOSYNTHESIS\_II\_\_NAD\_salvage\_pathway\_II\_unclassified  
NAGLIPASYN\_PWY\_\_lipid\_IVA\_biosynthesis\_g\_\_Burkholderiales\_noname\_s\_\_Burkholderiales\_bac  
NAGLIPASYN\_PWY\_\_lipid\_IVA\_biosynthesis\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
NAGLIPASYN\_PWY\_\_lipid\_IVA\_biosynthesis\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
NAGLIPASYN\_PWY\_\_lipid\_IVA\_biosynthesis\_g\_\_Oxalobacter\_s\_\_Oxalobacter\_formigenes  
NAGLIPASYN\_PWY\_\_lipid\_IVA\_biosynthesis\_g\_\_Parasutterella\_s\_\_Parasutterella\_excrementihomi  
NAGLIPASYN\_PWY\_\_lipid\_IVA\_biosynthesis\_unclassified  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Adlercreutzia\_s\_\_Adlercreutzia\_e  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Akkermansia\_s\_\_Akkermansia\_n  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Alistipes\_s\_\_Alistipes\_finegoldii  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Alistipes\_s\_\_Alistipes\_indistinctu  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Alistipes\_s\_\_Alistipes\_putredinis  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Alistipes\_s\_\_Alistipes\_sp\_HGB5  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_h  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Anaerotruncus\_s\_\_Anaerotruncu  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_egg  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_ova  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_\_  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_\_  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_\_  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_\_  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_xyla  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bifidobacterium\_s\_\_Bifidobacter  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Bifidobacterium\_s\_\_Bifidobacter  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Blautia\_s\_\_Ruminococcus\_gnavu  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Blautia\_s\_\_Ruminococcus\_obeur  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Blautia\_s\_\_Ruminococcus\_torque  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Burkholderiales\_noname\_s\_\_Bur  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Butyrivibrio\_s\_\_Butyrivibrio\_cros  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Citrobacter\_s\_\_Citrobacter\_freur  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Clostridium\_s\_\_Clostridium\_aspa  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Clostridium\_s\_\_Clostridium\_hath  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Clostridium\_s\_\_Clostridium\_perf  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_I  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_S  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Collinsella\_s\_\_Collinsella\_intestir  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Collinsella\_s\_\_Collinsella\_tanaka  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Coprothermobacter\_s\_\_Coprothermobacter\_fa  
NONMEVIPP\_PWY\_\_methylethylerythritol\_phosphate\_pathway\_I\_g\_\_Dorea\_s\_\_Dorea\_formicigeneran

NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Eggerthella\_s\_Eggerthella\_lenta  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Eggerthella\_s\_Eggerthella\_sp\_1  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Eggerthella\_s\_Eggerthella\_sp\_H  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Erysipelotrichaceae\_noname\_s\_  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Erysipelotrichaceae\_noname\_s\_  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Eubacterium\_s\_Eubacterium\_ra  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Eubacterium\_s\_Eubacterium\_sp  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Fusobacterium\_s\_Fusobacteriur  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Holdemania\_s\_Holdemania\_filli  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Klebsiella\_s\_Klebsiella\_pneumo  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Lachnospiraceae\_noname\_s\_La  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Lachnospiraceae\_noname\_s\_La  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Lachnospiraceae\_noname\_s\_La  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Lachnospiraceae\_noname\_s\_La  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Lachnospiraceae\_noname\_s\_La  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Lachnospiraceae\_noname\_s\_La  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Odoribacter\_s\_Odoribacter\_lan  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Odoribacter\_s\_Odoribacter\_spl  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Paraprevotella\_s\_Paraprevotelli  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Parasutterella\_s\_Parasutterella  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Peptostreptococcaceae\_noname\_  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Phascolarctobacterium\_s\_Phasc  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Propionibacterium\_s\_Propionib  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Roseburia\_s\_Roseburia\_homini  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Ruminococcus\_s\_Ruminococcus  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_l\_g\_Slackia\_s\_Slackia\_piriformis  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Alistipes\_s\_Alist  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g>Anaerostipes\_s\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Bacteroides\_s\_E  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Bacteroides\_s\_E  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Blautia\_s\_Rumir  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Blautia\_s\_Rumir  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Citrobacter\_s\_C  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Clostridiales\_non  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Clostridium\_s\_C  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Clostridium\_s\_C  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Coprococcus\_s\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Enterobacter\_s\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Erysipelotrichace  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Erysipelotrichace  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Eubacterium\_s\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Eubacterium\_s\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Fusobacterium\_s\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Klebsiella\_s\_Kle  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Lachnospiraceae\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Lachnospiraceae\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Lactobacillus\_s\_  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Lactobacillus\_s\_

NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Lactococcus\_s\_L  
NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Odoribacter\_s\_O  
NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Oxalobacter\_s\_O  
NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Peptostreptococc  
NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Phascalartobact  
NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Propionibacteriur  
NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Veillonella\_s\_Ve  
NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Veillonella\_s\_Ve  
OANTIGEN\_PWY\_O\_antigen\_building\_blocks\_biosynthesis\_(E\_coli)\_g\_Lactococcus\_s\_Lactoco  
OANTIGEN\_PWY\_O\_antigen\_building\_blocks\_biosynthesis\_(E\_coli)\_g\_Ruminococcus\_s\_Rumi  
ORNARGDEG\_PWY\_superpathway\_of\_L\_arginine\_and\_L\_ornithine\_degradation\_unclassified  
P105\_PWY\_TCA\_cycle\_IV\_(2\_oxoglutarate\_decarboxylase)\_g\_Citrobacter\_s\_Citrobacter\_freun  
P108\_PWY\_pyruvate\_fermentation\_to\_propanoate\_I\_g\_Propionibacterium\_s\_Propionibacteri  
P125\_PWY\_superpathway\_of\_(R,R)\_butanediol\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_la  
P125\_PWY\_superpathway\_of\_(R,R)\_butanediol\_biosynthesis\_unclassified  
P161\_PWY\_acetylene\_degradation\_g\_Citrobacter\_s\_Citrobacter\_freundii  
P161\_PWY\_acetylene\_degradation\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
P161\_PWY\_acetylene\_degradation\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
P163\_PWY\_L\_lysine\_fermentation\_to\_acetate\_and\_butanoate\_g\_Fusobacterium\_s\_Fusobacte  
P185\_PWY\_formaldehyde\_assimilation\_III\_(dihydroxyacetone\_cycle)\_g\_Citrobacter\_s\_Citroba  
P185\_PWY\_formaldehyde\_assimilation\_III\_(dihydroxyacetone\_cycle)\_g\_Escherichia\_s\_Escheric  
P23\_PWY\_reductive\_TCA\_cycle\_I\_unclassified  
P441\_PWY\_superpathway\_of\_N\_acetylneuraminate\_degradation\_g\_Citrobacter\_s\_Citrobacter  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Anaerostipes\_s  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Citrobacter\_s\_  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Clostridium\_s\_  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Enterobacter\_s  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Klebsiella\_s\_k  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Lachnospiracea  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Lactobacillus\_s  
P461\_PWY\_hexitol\_fermentation\_to\_lactate,formate,ethanol\_and\_acetate\_g\_Lactobacillus\_s  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Adlercreutzia\_s\_Adlercreutzia\_equolifa  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Akkermansia\_s\_Akkermansia\_muciniph  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_finegoldii  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_indistinctus  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_putredinis  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_sp\_HGB5  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Anaerofustis\_s\_Anaerofustis\_stercorihc  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_cellulosilyti  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_clarus  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_coprocola  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_dorei  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_eggerthii  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_faecis  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_finegoldii  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_intestinalis

PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_massiliensis  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_ovatus  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_plebeius  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_19  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_33F  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_40A  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_4\_3\_47F  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_9\_1\_42F  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_D20  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_stercoris  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaon  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_uniformis  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_xylanisolver  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Barnesiella\_s\_Barnesiella\_intestinihomi  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Bilophila\_s\_Bilophila\_wadsworthia  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Blautia\_s\_Blautia\_hydrogenotrophica  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Blautia\_s\_Ruminococcus\_gnavus  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Burkholderiales\_noname\_s\_Burkholder  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Butyrvibrio\_s\_Butyrvibrio\_crossotus  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_sp\_L2\_50  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Copro bacter\_s\_Copro bacter\_fastidiosus  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Coprococcus\_s\_Coprococcus\_eutactus  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Coprococcus\_s\_Coprococcus\_sp\_ART55  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Eggerthella\_s\_Eggerthella\_lenta  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Eggerthella\_s\_Eggerthella\_sp\_1\_3\_56F  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Eggerthella\_s\_Eggerthella\_sp\_HGA1  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Enterococcus\_s\_Enterococcus\_faecalis  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Enterorhabdus\_s\_Enterorhabdus\_caecii  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Eubacterium\_s\_Eubacterium\_hallii  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Eubacterium\_s\_Eubacterium\_ramulus  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Eubacterium\_s\_Eubacterium\_ventriosu  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Lachnospiraceae\_noname\_s\_Lachnospir  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Lachnospiraceae\_noname\_s\_Lachnospir  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Lachnospiraceae\_noname\_s\_Lachnospir  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Lachnospiraceae\_noname\_s\_Lachnospir  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Odoribacter\_s\_Odoribacter\_laneus  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_l\_g\_Odoribacter\_s\_Odoribacter\_splanchnic







PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PHOSLIPSYN\_PWY\_\_superpathway\_of\_phospholipid\_biosynthesis\_I\_(bacteria)\_g\_\_Citrobacter\_s\_\_  
PHOSLIPSYN\_PWY\_\_superpathway\_of\_phospholipid\_biosynthesis\_I\_(bacteria)\_g\_\_Enterobacter\_s\_\_  
PHOSLIPSYN\_PWY\_\_superpathway\_of\_phospholipid\_biosynthesis\_I\_(bacteria)\_g\_\_Klebsiella\_s\_\_K  
POLYAMINSYN3\_PWY\_\_superpathway\_of\_polyamine\_biosynthesis\_II\_unclassified  
POLYAMSYN\_PWY\_\_superpathway\_of\_polyamine\_biosynthesis\_I\_g\_\_Veillonella\_s\_\_Veillonella\_p  
PPGPPMET\_PWY\_\_ppGpp\_biosynthesis\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PPGPPMET\_PWY\_\_ppGpp\_biosynthesis\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
PPGPPMET\_PWY\_\_ppGpp\_biosynthesis\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
PROTocatechuate\_ORTHO\_CLEAVAGE\_PWY\_\_protocatechuate\_degradation\_II\_(ortho\_cleavage  
PROTocatechuate\_ORTHO\_CLEAVAGE\_PWY\_\_protocatechuate\_degradation\_II\_(ortho\_cleavage  
PROTocatechuate\_ORTHO\_CLEAVAGE\_PWY\_\_protocatechuate\_degradation\_II\_(ortho\_cleavage  
PWY\_101\_\_photosynthesis\_light\_reactions  
PWY\_101\_\_photosynthesis\_light\_reactions\_unclassified

PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Akkermansia\_s\_Akkermansia\_muciniphila  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Alistipes\_s\_Alistipes\_senegalensis  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Alistipes\_s\_Alistipes\_shahii  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Anaerofustis\_s\_Anaerofustis\_stercorihominis  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Anaerotruncus\_s\_Anaerotruncus\_colihominis  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_coprocola  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_faecis  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_finegoldii  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_ovatus  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaomicron  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Barnesiella\_s\_Barnesiella\_intestinihominis  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Blautia\_s\_Ruminococcus\_obeum  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Citrobacter\_s\_Citrobacter\_freundii  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Clostridiales\_noname\_s\_Clostridiales\_bacterium\_1  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Clostridium\_s\_Clostridium\_asparagiforme  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Clostridium\_s\_Clostridium\_perfringens  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Coprococcus\_s\_Coprococcus\_catus  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Eggerthella\_s\_Eggerthella\_lenta  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Eggerthella\_s\_Eggerthella\_sp\_1\_3\_56FAA  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Eggerthella\_s\_Eggerthella\_sp\_HGA1  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Enterococcus\_s\_Enterococcus\_faecium  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Holdemania\_s\_Holdemania\_filiformis  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bac  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bac  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bac  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Pediococcus\_s\_Pediococcus\_acidilactici  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Pediococcus\_s\_Pediococcus\_lolii  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Peptostreptococcaceae\_noname\_s\_Clostridium\_ba  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Ruminococcus\_s\_Ruminococcus\_champanellensis  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Ruminococcus\_s\_Ruminococcus\_sp  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Streptococcus\_s\_Streptococcus\_australis  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Streptococcus\_s\_Streptococcus\_mitis\_oralis\_pneu  
 PWY\_1269\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_Akkermansia\_s\_Akkermansia\_muciniphila  
 PWY\_1269\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_senegalensis  
 PWY\_1269\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_shahii  
 PWY\_1269\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_coprocola

PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroid  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Citrobacter\_s\_\_Citrobacte  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Odoribacter\_s\_\_Odoribac  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Oxalobacter\_s\_\_Oxalobac  
PWY\_1861\_\_formaldehyde\_assimilation\_II\_(RuMP\_Cycle)\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
PWY\_1861\_\_formaldehyde\_assimilation\_II\_(RuMP\_Cycle)\_unclassified  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Catenibacterium\_s\_\_Catenibacterium\_mitsuokai  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Enterococcus\_s\_\_Enterococcus\_durans  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Enterococcus\_s\_\_Enterococcus\_faecalis  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Erysipelotrichaceae\_noname\_s\_\_Clostridium\_spiroforme  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Erysipelotrichaceae\_noname\_s\_\_Erysipelotrichaceae\_ba  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_casei\_paracasei  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_fermentum  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Odoribacter\_s\_\_Odoribacter\_splanchnicus  
PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Peptostreptococcaceae\_noname\_s\_\_Clostridium\_bartlet  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Adlercreutzia\_s\_\_Adlercreutzia\_equolifaciens  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Akkermansia\_s\_\_Akkermansia\_muciniphila  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Alistipes\_s\_\_Alistipes\_indistinctus  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Anaerotruncus\_s\_\_Anaerotruncus\_colihominis  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_cellulosilyticus  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_clarus  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_coprocola  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_dorei  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_eggerthii  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_faecis  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_finegoldii  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_intestinalis  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_massiliensis  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatus  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_plebeius  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_salyersiae  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_30  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_6  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_1\_22  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_2\_4  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_19  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_23

PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_sp_3_1_33FAA
PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_sp_3_1_40A
PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_sp_4_3_47FAA
PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_sp_9_1_42FAA
PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_sp_D20
PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_stercoris
PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_thetaiotaomicron
PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_uniformis
PWY_2942__L_lysine_biosynthesis_III_g_Bacteroides_s_Bacteroides_xylanisolvans
PWY_2942__L_lysine_biosynthesis_III_g_Barnesiella_s_Barnesiella_intestinihominis
PWY_2942__L_lysine_biosynthesis_III_g_Bifidobacterium_s_Bifidobacterium_animalis
PWY_2942__L_lysine_biosynthesis_III_g_Bilophila_s_Bilophila_wadsworthia
PWY_2942__L_lysine_biosynthesis_III_g_Blautia_s_Ruminococcus_gnavus
PWY_2942__L_lysine_biosynthesis_III_g_Blautia_s_Ruminococcus_obeum
PWY_2942__L_lysine_biosynthesis_III_g_Burkholderiales_noname_s_Burkholderiales_bacterium
PWY_2942__L_lysine_biosynthesis_III_g_Catenibacterium_s_Catenibacterium_mitsuokai
PWY_2942__L_lysine_biosynthesis_III_g_Citrobacter_s_Citrobacter_freundii
PWY_2942__L_lysine_biosynthesis_III_g_Clostridium_s_Clostridium_asparagiforme
PWY_2942__L_lysine_biosynthesis_III_g_Clostridium_s_Clostridium_hathewayi
PWY_2942__L_lysine_biosynthesis_III_g_Clostridium_s_Clostridium_sp_SS2_1
PWY_2942__L_lysine_biosynthesis_III_g_Coprobacter_s_Coprobacter_fastidiosus
PWY_2942__L_lysine_biosynthesis_III_g_Coprococcus_s_Coprococcus_catus
PWY_2942__L_lysine_biosynthesis_III_g_Coprococcus_s_Coprococcus_eutactus
PWY_2942__L_lysine_biosynthesis_III_g_Coprococcus_s_Coprococcus_sp_ART55_1
PWY_2942__L_lysine_biosynthesis_III_g_Dialister_s_Dialister_invisus
PWY_2942__L_lysine_biosynthesis_III_g_Eggerthella_s_Eggerthella_lenta
PWY_2942__L_lysine_biosynthesis_III_g_Eggerthella_s_Eggerthella_sp_1_3_56FAA
PWY_2942__L_lysine_biosynthesis_III_g_Eggerthella_s_Eggerthella_sp_HGA1
PWY_2942__L_lysine_biosynthesis_III_g_Enterococcus_s_Enterococcus_durans
PWY_2942__L_lysine_biosynthesis_III_g_Enterorhabdus_s_Enterorhabdus_caecimuris
PWY_2942__L_lysine_biosynthesis_III_g_Erysipelotrichaceae_noname_s_Clostridium_spiroform
PWY_2942__L_lysine_biosynthesis_III_g_Erysipelotrichaceae_noname_s_Erysipelotrichaceae_ba
PWY_2942__L_lysine_biosynthesis_III_g_Eubacterium_s_Eubacterium_siraeum
PWY_2942__L_lysine_biosynthesis_III_g_Eubacterium_s_Eubacterium_sp_3_1_31
PWY_2942__L_lysine_biosynthesis_III_g_Faecalibacterium_s_Faecalibacterium_prausnitzii
PWY_2942__L_lysine_biosynthesis_III_g_Gemella_s_Gemella_sanguinis
PWY_2942__L_lysine_biosynthesis_III_g_Gordonibacter_s_Gordonibacter_pamelaeae
PWY_2942__L_lysine_biosynthesis_III_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteri
PWY_2942__L_lysine_biosynthesis_III_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteri
PWY_2942__L_lysine_biosynthesis_III_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteri
PWY_2942__L_lysine_biosynthesis_III_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteri
PWY_2942__L_lysine_biosynthesis_III_g_Lactobacillus_s_Lactobacillus_casei_paracasei
PWY_2942__L_lysine_biosynthesis_III_g_Lactobacillus_s_Lactobacillus_fermentum
PWY_2942__L_lysine_biosynthesis_III_g_Lactococcus_s_Lactococcus_lactis
PWY_2942__L_lysine_biosynthesis_III_g_Odoribacter_s_Odoribacter_laneus
PWY_2942__L_lysine_biosynthesis_III_g_Odoribacter_s_Odoribacter_splanchnicus
PWY_2942__L_lysine_biosynthesis_III_g_Oxalobacter_s_Oxalobacter_formigenes

PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_distasonis  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_goldsteinii  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_johnsonii  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_merdae  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_sp\_20\_3  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_sp\_D13  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Paraprevotella\_s\_\_Paraprevotella\_clara  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Paraprevotella\_s\_\_Paraprevotella\_xylaniphila  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Peptostreptococcaceae\_noname\_s\_\_Clostridium\_bartle  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Prevotella\_s\_\_Prevotella\_copri  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Propionibacterium\_s\_\_Propionibacterium\_freudenreich  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_champanellensis  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_lactaris  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Veillonella\_s\_\_Veillonella\_dispar  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Veillonella\_s\_\_Veillonella\_parvula  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Citrobacter\_s\_\_Citrobacter\_freund  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_cat  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_eut  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_sp\_  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Enterobacter\_s\_\_Enterobacter\_clo  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Propionibacterium\_s\_\_Propioniba  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_r  
PWY\_3781\_\_aerobic\_respiration\_I\_(cytochrome\_c)\_g\_\_Nakaseomyces\_s\_\_Candida\_glabrata  
PWY\_3801\_\_sucrose\_degradation\_II\_(sucrose\_synthase)  
PWY\_3801\_\_sucrose\_degradation\_II\_(sucrose\_synthase)\_unclassified  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Akkermansia\_s\_\_Akkermansia\_muciniphila  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_cellulosilyticus  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_clarus  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_coprocola  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_dorei  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_faecis  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_finegoldii  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_fragilis  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_intestinalis  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_massiliensis  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatus  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_30  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_6  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_1\_22  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_2\_4  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_19  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_23  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_33FAA  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_40A  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_4\_3\_47FAA  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_9\_1\_42FAA

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_D20

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_stercoris

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_thetaiotaomicron

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_uniformis

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylanisolvens

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Enterococcus\_s\_\_Enterococcus\_faecalis

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Enterococcus\_s\_\_Enterococcus\_faecium

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_brevis

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_casei\_paracasei

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_fermentum

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_distasonis

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_goldsteinii

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_johnsonii

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_merdae

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_sp\_20\_3

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_sp\_D13

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_mitis\_oralis\_pneumo

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_sanguinis

PWY\_4041\_\_&gamma\_\_glutamyl\_cycle\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii

PWY\_4041\_\_&gamma\_\_glutamyl\_cycle\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Actinomyces\_s\_\_Actinomyces

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Akkermansia\_s\_\_Akkermansia

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Anaerofustis\_s\_\_Anaerofustis\_s

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Anaerotruncus\_s\_\_Anaerotrunc

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_ov

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_xy

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Citrobacter\_s\_\_Citrobacter\_fre

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Clostridiales\_noname\_s\_\_Clost

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Eggerthella\_s\_\_Eggerthella\_len

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Eggerthella\_s\_\_Eggerthella\_sp

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Eggerthella\_s\_\_Eggerthella\_sp

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Erysipelotrichaceae\_noname\_s

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Eubacterium\_s\_\_Eubacterium

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Lactococcus\_s\_\_Lactococcus\_la

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Oxalobacter\_s\_\_Oxalobacter\_fc

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Pediococcus\_s\_\_Pediococcus\_a

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Pediococcus\_s\_\_Pediococcus\_lc

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_\_Phascolarctobacterium\_s\_\_Pha

PWY\_4242\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_Streptococcus\_s\_Streptococcus

PWY\_4242\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_Streptococcus\_s\_Streptococcus

PWY\_4242\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_Veillonella\_s\_Veillonella\_dispar

PWY\_4242\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_Veillonella\_s\_Veillonella\_parvula

PWY\_4321\_L\_glutamate\_degradation\_IV

PWY\_4321\_L\_glutamate\_degradation\_IV\_unclassified

PWY\_4361\_S\_methyl\_5\_thio\_alpha\_D\_ribose\_1\_phosphate\_degradation

PWY\_4361\_S\_methyl\_5\_thio\_alpha\_D\_ribose\_1\_phosphate\_degradation\_unclassified

PWY\_4702\_phytate\_degradation\_I\_g\_Akkermansia\_s\_Akkermansia\_muciniphila

PWY\_4702\_phytate\_degradation\_I\_unclassified

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Adlercreutzia\_s\_Adlercreutzia\_equol

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g>Anaerofustis\_s>Anaerofustis\_stercorarius

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Clostridiales\_noname\_s\_Clostridiales

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Clostridium\_s\_Clostridium\_asparagiflavum

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Clostridium\_s\_Clostridium\_citroniae

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Clostridium\_s\_Clostridium\_perfringens

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Collinsella\_s\_Collinsella\_tanakaei

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Eggerthella\_s\_Eggerthella\_lenta

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Eggerthella\_s\_Eggerthella\_sp\_1\_3\_51

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Eggerthella\_s\_Eggerthella\_sp\_HGA1

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Enterobacter\_s\_Enterobacter\_cloacae

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Enterococcus\_s\_Enterococcus\_faecium

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Enterorhabdus\_s\_Enterorhabdus\_caerulius

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Escherichia\_s\_Escherichia\_coli

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g>Eubacterium\_s>Eubacterium\_ramulorum

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g>Lactobacillus\_s>Lactobacillus\_brevis

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g>Lactobacillus\_s>Lactobacillus\_fermentum

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g>Odoribacter\_s>Odoribacter\_splanchnicus

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g>Pediococcus\_s>Pediococcus\_acidilactici

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g>Pediococcus\_s>Pediococcus\_lolii

PWY\_4981\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g>Slackia\_s>Slackia\_piriformis

PWY\_4984\_urea\_cycle\_g>Coprococcus\_s>Coprococcus\_catus

PWY\_4984\_urea\_cycle\_g>Lachnospiraceae\_noname\_s>Lachnospiraceae\_bacterium\_7\_1\_58FA

PWY\_5004\_superpathway\_of\_L\_citrulline\_metabolism

PWY\_5005\_biotin\_biosynthesis\_II\_g\_Veillonella\_s\_Veillonella\_dispar

PWY\_5005\_biotin\_biosynthesis\_II\_g\_Veillonella\_s\_Veillonella\_parvula

PWY\_5022\_4\_aminobutanoate\_degradation\_V\_g>Klebsiella\_s>Klebsiella\_pneumoniae

PWY\_5022\_4\_aminobutanoate\_degradation\_V\_unclassified

PWY\_5083\_NAD\_NADH\_phosphorylation\_and\_dephosphorylation\_g>Citrobacter\_s>Citrobacter

PWY\_5083\_NAD\_NADH\_phosphorylation\_and\_dephosphorylation\_g\_Enterobacter\_s\_Enterobacter

PWY\_5083\_NAD\_NADH\_phosphorylation\_and\_dephosphorylation\_g>Klebsiella\_s>Klebsiella\_pneumoniae

PWY\_5088\_L\_glutamate\_degradation\_VIII\_(to\_propanoate)

PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g\_Adlercreutzia\_s\_Adlercreutzia\_equolifaciens

PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g\_Akkermansia\_s\_Akkermansia\_muciniphila

PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g>Alistipes\_s>Alistipes\_indistinctus

PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g>Anaerostipes\_s>Anaerostipes\_hadrus

PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g>Anaerotruncus\_s>Anaerotruncus\_colihominis

PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_cellulosilyticus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_clarus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_coprocola  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_eggerthii  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_faecis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_finegoldii  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_intestinalis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_massiliensis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_ovatus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_plebeius  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_salyersiae  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_19  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_40A  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_4\_3\_47FAA  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_D20  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_stercoris  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaomicron  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_uniformis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvans  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Barnesiella\_s\_Barnesiella\_intestinihominis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bifidobacterium\_s\_Bifidobacterium\_animalis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bilophila\_s\_Bilophila\_wadsworthia  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Blautia\_s\_Ruminococcus\_gnavus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Blautia\_s\_Ruminococcus\_obeum  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Burkholderiales\_noname\_s\_Burkholderiales\_bacterium  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Catenibacterium\_s\_Catenibacterium\_mitsuokai  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Clostridium\_s\_Clostridium\_asparagiforme  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Clostridium\_s\_Clostridium\_hathewayi  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Coprobacter\_s\_Coprobacter\_fastidiosus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Coprococcus\_s\_Coprococcus\_catus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Coprococcus\_s\_Coprococcus\_eutactus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Coprococcus\_s\_Coprococcus\_sp\_ART55\_1  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Dialister\_s\_Dialister\_invisus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Enterococcus\_s\_Enterococcus\_durans  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Enterorhabdus\_s\_Enterorhabdus\_caecimuris  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Erysipelotrichaceae\_noname\_s\_Clostridium\_spiroform  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Erysipelotrichaceae\_noname\_s\_Erysipelotrichaceae\_b  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Eubacterium\_s\_Eubacterium\_siraeum  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Gordonibacter\_s\_Gordonibacter\_pamelaeae  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacterium



PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacteri  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacteri  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Lactobacillus\_s\_Lactobacillus\_casei\_paracasei  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Lactobacillus\_s\_Lactobacillus\_fermentum  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Odoribacter\_s\_Odoribacter\_laneus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Oxalobacter\_s\_Oxalobacter\_formigenes  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Parabacteroides\_s\_Parabacteroides\_distasonis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Parabacteroides\_s\_Parabacteroides\_goldsteinii  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Parabacteroides\_s\_Parabacteroides\_johnsonii  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Parabacteroides\_s\_Parabacteroides\_merdae  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Parabacteroides\_s\_Parabacteroides\_sp\_20\_3  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Parabacteroides\_s\_Parabacteroides\_sp\_D13  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Paraprevotella\_s\_Paraprevotella\_clara  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Paraprevotella\_s\_Paraprevotella\_xylaniphila  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Peptostreptococcaceae\_noname\_s\_Clostridium\_bartle  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Phascolarctobacterium\_s\_Phascolarctobacterium\_succ  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Prevotella\_s\_Prevotella\_copri  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Roseburia\_s\_Roseburia\_hominis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Ruminococcus\_s\_Ruminococcus\_callidus  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Ruminococcus\_s\_Ruminococcus\_champanellensis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Ruminococcus\_s\_Ruminococcus\_lactaris  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Veillonella\_s\_Veillonella\_dispar  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Veillonella\_s\_Veillonella\_parvula  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Anaerostipes\_s\_Anaerostipe  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Bifidobacterium\_s\_Bifidobac  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Clostridium\_s\_Clostridium\_s  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Clostridium\_s\_Clostridium\_s  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Collinsella\_s\_Collinsella\_inte  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Collinsella\_s\_Collinsella\_tan  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Coprococcus\_s\_Coprococcus  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Coprococcus\_s\_Coprococcus  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Eggerthella\_s\_Eggerthella\_le  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Eggerthella\_s\_Eggerthella\_s  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Eggerthella\_s\_Eggerthella\_s  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Enterococcus\_s\_Enterococcu  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Enterococcus\_s\_Enterococcu  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Erysipelotrichaceae\_noname\_  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Erysipelotrichaceae\_noname\_  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Eubacterium\_s\_Eubacterium  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Gemella\_s\_Gemella\_sanguir  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Klebsiella\_s\_Klebsiella\_pneu  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Lachnospiraceae\_noname\_s\_  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Propionibacterium\_s\_Propio  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Roseburia\_s\_Roseburia\_hor  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Solobacterium\_s\_Solobacter  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Streptococcus\_s\_Streptococc

PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Streptococcus\_s\_\_Streptococ  
 PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Streptococcus\_s\_\_Streptococ  
 PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Veillonella\_s\_\_Veillonella\_dis  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Akkermansia\_s\_\_Akkermansia\_muciniphila  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Anaerofustis\_s\_\_Anaerofustis\_stercorihominis  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Clostridium\_s\_\_Clostridium\_asparagiforme  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Clostridium\_s\_\_Clostridium\_leptum  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_catus  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_eutactus  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_sp\_ART55\_1  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Eubacterium\_s\_\_Eubacterium\_siraeum  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Fusobacterium\_s\_\_Fusobacterium\_nucleatum  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Odoribacter\_s\_\_Odoribacter\_laneus  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Odoribacter\_s\_\_Odoribacter\_splanchnicus  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Propionibacterium\_s\_\_Propionibacterium\_freudenr  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Streptococcus\_s\_\_Streptococcus\_australis  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Streptococcus\_s\_\_Streptococcus\_mitis\_oralis\_pneu  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Streptococcus\_s\_\_Streptococcus\_sanguinis  
 PWY\_5103\_\_L\_ileucine\_biosynthesis\_III\_g\_\_Subdoligranulum\_s\_\_Subdoligranulum\_sp\_4\_3\_54A  
 PWY\_5104\_\_L\_ileucine\_biosynthesis\_IV\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus  
 PWY\_5104\_\_L\_ileucine\_biosynthesis\_IV\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_1  
 PWY\_5104\_\_L\_ileucine\_biosynthesis\_IV\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_eutactus  
 PWY\_5104\_\_L\_ileucine\_biosynthesis\_IV\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_sp\_ART55\_1  
 PWY\_5104\_\_L\_ileucine\_biosynthesis\_IV\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bac  
 PWY\_5104\_\_L\_ileucine\_biosynthesis\_IV\_g\_\_Propionibacterium\_s\_\_Propionibacterium\_freudenr  
 PWY\_5136\_\_fatty\_acid\_&beta\_oxidation\_II\_(peroxisome)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freunc  
 PWY\_5138\_\_unsaturated\_even\_numbered\_fatty\_acid\_&beta\_oxidation\_g\_\_Citrobacter\_s\_\_Citro  
 PWY\_5138\_\_unsaturated\_even\_numbered\_fatty\_acid\_&beta\_oxidation\_unclassified  
 PWY\_5154\_\_L\_arginine\_biosynthesis\_III\_(via\_N\_acetyl\_L\_citrulline)\_g\_\_Coproccoccus\_s\_\_Coproco  
 PWY\_5154\_\_L\_arginine\_biosynthesis\_III\_(via\_N\_acetyl\_L\_citrulline)\_g\_\_Lactococcus\_s\_\_Lactococ  
 PWY\_5173\_\_superpathway\_of\_acetyl\_CoA\_biosynthesis\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
 PWY\_5173\_\_superpathway\_of\_acetyl\_CoA\_biosynthesis\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloac  
 PWY\_5173\_\_superpathway\_of\_acetyl\_CoA\_biosynthesis\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
 PWY\_5173\_\_superpathway\_of\_acetyl\_CoA\_biosynthesis\_g\_\_Nakaseomyces\_s\_\_Candida\_glabrata  
 PWY\_5173\_\_superpathway\_of\_acetyl\_CoA\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_san  
 PWY\_5173\_\_superpathway\_of\_acetyl\_CoA\_biosynthesis\_unclassified  
 PWY\_5177\_\_glutaryl\_CoA\_degradation\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_catus  
 PWY\_5180\_\_toluene\_degradation\_I\_(aerobic)\_(via\_o\_cresol)  
 PWY\_5182\_\_toluene\_degradation\_II\_(aerobic)\_(via\_4\_methylcatechol)  
 PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Actinomyces\_s\_\_Actinomyces\_gra  
 PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Akkermansia\_s\_\_Akkermansia\_mi  
 PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_ha  
 PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Anaerotruncus\_s\_\_Anaerotruncus

PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Bilophila\_s\_\_Bilophila\_wadsworth  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Burkholderiales\_noname\_s\_\_Burk  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freund  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Clostridium\_s\_\_Clostridium\_aspar  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Clostridium\_s\_\_Clostridium\_perfri  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_cat  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_eut  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Dialister\_s\_\_Dialister\_invisus  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Eggerthella\_s\_\_Eggerthella\_lenta  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Enterobacter\_s\_\_Enterobacter\_cl  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Eubacterium\_s\_\_Eubacterium\_sp\_  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Fusobacterium\_s\_\_Fusobacterium  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumon  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Lachnospiraceae\_noname\_s\_\_Lac  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Lachnospiraceae\_noname\_s\_\_Lac  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Lachnospiraceae\_noname\_s\_\_Lac  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Parasutterella\_s\_\_Parasutterella\_  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Peptostreptococcaceae\_noname\_  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Propionibacterium\_s\_\_Propioniba  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Veillonella\_s\_\_Veillonella\_dispar  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Veillonella\_s\_\_Veillonella\_parvula  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Clostridium\_s\_\_Clostridium\_asparag  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloac  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Nakaseomyces\_s\_\_Candida\_glabrata  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Propionibacterium\_s\_\_Propionibacte  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Streptococcus\_s\_\_Streptococcus\_sar  
PWY\_5304\_\_superpathway\_of\_sulfur\_oxidation\_(Acidianus\_ambivalens)\_g\_\_Anaerostipes\_s\_\_Ani  
PWY\_5304\_\_superpathway\_of\_sulfur\_oxidation\_(Acidianus\_ambivalens)\_g\_\_Clostridium\_s\_\_Clos  
PWY\_5304\_\_superpathway\_of\_sulfur\_oxidation\_(Acidianus\_ambivalens)\_g\_\_Coproccoccus\_s\_\_Cof  
PWY\_5304\_\_superpathway\_of\_sulfur\_oxidation\_(Acidianus\_ambivalens)\_g\_\_Coproccoccus\_s\_\_Cof  
PWY\_5304\_\_superpathway\_of\_sulfur\_oxidation\_(Acidianus\_ambivalens)\_g\_\_Lachnospiraceae\_nor  
PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_g\_\_Anaerostipes\_s\_  
PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_g\_\_Clostridium\_s\_  
PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_g\_\_Enterobacter\_s\_  
PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_g\_\_Klebsiella\_s\_\_Kl  
PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_g\_\_Lachnospiraceae  
PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_g\_\_Lactococcus\_s\_\_

PWY\_5367\_\_petroselinate\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 PWY\_5415\_\_catechol\_degradation\_I\_(meta\_cleavage\_pathway)  
 PWY\_5415\_\_catechol\_degradation\_I\_(meta\_cleavage\_pathway)\_g\_Klebsiella\_s\_Klebsiella\_pne  
 PWY\_5484\_\_glycolysis\_II\_(from\_fructose\_6\_phosphate)\_g\_Citrobacter\_s\_Citrobacter\_freundii  
 PWY\_5484\_\_glycolysis\_II\_(from\_fructose\_6\_phosphate)\_g\_Enterobacter\_s\_Enterobacter\_cloaca  
 PWY\_5484\_\_glycolysis\_II\_(from\_fructose\_6\_phosphate)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
 PWY\_5484\_\_glycolysis\_II\_(from\_fructose\_6\_phosphate)\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 PWY\_561\_\_superpathway\_of\_glyoxylate\_cycle\_and\_fatty\_acid\_degradation\_g\_Citrobacter\_s\_C  
 PWY\_5656\_\_mannosylglycerate\_biosynthesis\_I\_unclassified  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Alistipes\_s\_Alistipes\_finegoldii  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Alistipes\_s\_Alistipes\_onderdonkii  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Alistipes\_s\_Alistipes\_shahii  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Alistipes\_s\_Alistipes\_sp\_HGB5  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_finegoldii  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_ovatus  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_eutactus  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_sp\_ART55\_1  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium\_siraeum  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bact  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Nakaseomyces\_s\_Candida\_glabrata  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Propionibacterium\_s\_Propionibacterium\_freudenre  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_sp  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_finegoldii  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_indistinctus  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_sp\_HGB5  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_cellulosilyticus  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_clarus  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_coprocola  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_eggerthii  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_faecis  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_finegoldii  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_intestinalis  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_ovatus  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_plebeius  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_salyersiae  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_19

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_D20

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_stercoris

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaomicron

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_uniformis

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Barnesiella\_s\_Barnesiella\_intestinihominis

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Blautia\_s\_Blautia\_hydrogenotrophica

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Blautia\_s\_Ruminococcus\_gnavus

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Blautia\_s\_Ruminococcus\_obeum

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Butyrivibrio\_s\_Butyrivibrio\_crossotus

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Clostridiales\_noname\_s\_Clostridiales\_bacter

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_asparagiforme

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_bolteae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_clostridioforme

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_hathewayi

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_leptum

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_sp\_L2\_50

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Copro bacter\_s\_Copro bacter\_fastidiosus

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Coprococcus\_s\_Coprococcus\_eutactus

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Dialister\_s\_Dialister\_invisus

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Dorea\_s\_Dorea\_formicigenans

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Dorea\_s\_Dorea\_longicatena

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_Enterobacter\_s\_Enterobacter\_cloacae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Erysipelotrichaceae\_noname\_s\_Clostridium

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Eubacterium\_s\_Eubacterium\_eligens

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Eubacterium\_s\_Eubacterium\_hallii

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Eubacterium\_s\_Eubacterium\_ramulus

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Eubacterium\_s\_Eubacterium\_siraeum

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Eubacterium\_s\_Eubacterium\_ventriosum

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Gordonibacter\_s\_Gordonibacter\_pamelaeae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Klebsiella\_s\_Klebsiella\_pneumoniae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Oxalobacter\_s\_Oxalobacter\_formigenes

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Parabacteroides\_s>Parabacteroides\_distason

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g>Parabacteroides\_s>Parabacteroides\_johnson

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_merdae  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_sp\_D13  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Paraprevotella\_s\_\_Paraprevotella\_clara  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Peptostreptococcaceae\_noname\_s\_\_Clostridiu  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Propionibacterium\_s\_\_Propionibacterium\_frei  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Roseburia\_s\_\_Roseburia\_hominis  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Roseburia\_s\_\_Roseburia\_inulinivorans  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_champanell  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Streptococcus\_s\_\_Streptococcus\_mitis\_oralis  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Subdoligranulum\_s\_\_Subdoligranulum\_sp\_4  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Veillonella\_s\_\_Veillonella\_dispar  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_l\_g\_\_Veillonella\_s\_\_Veillonella\_parvula  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Adlercreutzia\_s\_\_Adlercreutzia\_equolifaciens  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Akkermansia\_s\_\_Akkermansia\_muciniphila  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Alistipes\_s\_\_Alistipes\_finegoldii  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Alistipes\_s\_\_Alistipes\_indistinctus  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Alistipes\_s\_\_Alistipes\_onderdonkii  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Alistipes\_s\_\_Alistipes\_putredinis  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Alistipes\_s\_\_Alistipes\_sp\_HGB5  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_cellulosilyticus  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_clarus  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_coprocola  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_eggerthii  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_faecis  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_finegoldii  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_intestinalis  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_massiliensis  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatus  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_plebeius  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_6  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_2\_4  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_19  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_23  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_D20  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_stercoris  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_thetaiotaomicron  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_uniformis  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Barnesiella\_s\_\_Barnesiella\_intestinihominis  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_animalis  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_catenulatum  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_dentium  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_pseudocatenulatum  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Bilophila\_s\_\_Bilophila\_wadsworthia  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Blautia\_s\_\_Ruminococcus\_gnavus

PWY_5686__UMP_biosynthesis_g__Blautia_s__Ruminococcus_obeum
PWY_5686__UMP_biosynthesis_g__Butyrivibrio_s__Butyrivibrio_crossotus
PWY_5686__UMP_biosynthesis_g__Citrobacter_s__Citrobacter_freundii
PWY_5686__UMP_biosynthesis_g__Clostridiales_noname_s__Bacteroides_pectinophilus
PWY_5686__UMP_biosynthesis_g__Clostridium_s__Clostridium_hathewayi
PWY_5686__UMP_biosynthesis_g__Clostridium_s__Clostridium_leptum
PWY_5686__UMP_biosynthesis_g__Clostridium_s__Clostridium_perfringens
PWY_5686__UMP_biosynthesis_g__Clostridium_s__Clostridium_sp_SS2_1
PWY_5686__UMP_biosynthesis_g__Clostridium_s__Clostridium_symbiosum
PWY_5686__UMP_biosynthesis_g__Collinsella_s__Collinsella_intestinalis
PWY_5686__UMP_biosynthesis_g__Collinsella_s__Collinsella_tanakaei
PWY_5686__UMP_biosynthesis_g__Coprococcus_s__Coprococcus_catus
PWY_5686__UMP_biosynthesis_g__Coprococcus_s__Coprococcus_eutactus
PWY_5686__UMP_biosynthesis_g__Dialister_s__Dialister_invisus
PWY_5686__UMP_biosynthesis_g__Eggerthella_s__Eggerthella_lenta
PWY_5686__UMP_biosynthesis_g__Eggerthella_s__Eggerthella_sp_1_3_56FAA
PWY_5686__UMP_biosynthesis_g__Eggerthella_s__Eggerthella_sp_HGA1
PWY_5686__UMP_biosynthesis_g__Enterobacter_s__Enterobacter_cloacae
PWY_5686__UMP_biosynthesis_g__Erysipelotrichaceae_noname_s__Clostridium_spiroforme
PWY_5686__UMP_biosynthesis_g__Erysipelotrichaceae_noname_s__Erysipelotrichaceae_bacteriu
PWY_5686__UMP_biosynthesis_g__Erysipelotrichaceae_noname_s__Erysipelotrichaceae_bacteriu
PWY_5686__UMP_biosynthesis_g__Erysipelotrichaceae_noname_s__Eubacterium_biforme
PWY_5686__UMP_biosynthesis_g__Erysipelotrichaceae_noname_s__Eubacterium_cylindroides
PWY_5686__UMP_biosynthesis_g__Eubacterium_s__Eubacterium_ramulus
PWY_5686__UMP_biosynthesis_g__Eubacterium_s__Eubacterium_siraeum
PWY_5686__UMP_biosynthesis_g__Eubacterium_s__Eubacterium_sp_3_1_31
PWY_5686__UMP_biosynthesis_g__Eubacterium_s__Eubacterium_ventriosum
PWY_5686__UMP_biosynthesis_g__Fusobacterium_s__Fusobacterium_nucleatum
PWY_5686__UMP_biosynthesis_g__Gemella_s__Gemella_sanguinis
PWY_5686__UMP_biosynthesis_g__Holdemania_s__Holdemania_filiformis
PWY_5686__UMP_biosynthesis_g__Klebsiella_s__Klebsiella_pneumoniae
PWY_5686__UMP_biosynthesis_g__Lachnospiraceae_noname_s__Lachnospiraceae_bacterium_1
PWY_5686__UMP_biosynthesis_g__Lachnospiraceae_noname_s__Lachnospiraceae_bacterium_2
PWY_5686__UMP_biosynthesis_g__Lachnospiraceae_noname_s__Lachnospiraceae_bacterium_3
PWY_5686__UMP_biosynthesis_g__Lachnospiraceae_noname_s__Lachnospiraceae_bacterium_5
PWY_5686__UMP_biosynthesis_g__Lachnospiraceae_noname_s__Lachnospiraceae_bacterium_7
PWY_5686__UMP_biosynthesis_g__Lactobacillus_s__Lactobacillus_fermentum
PWY_5686__UMP_biosynthesis_g__Lactococcus_s__Lactococcus_lactis
PWY_5686__UMP_biosynthesis_g__Methanobrevibacter_s__Methanobrevibacter_smithii
PWY_5686__UMP_biosynthesis_g__Odoribacter_s__Odoribacter_laneus
PWY_5686__UMP_biosynthesis_g__Odoribacter_s__Odoribacter_splanchnicus
PWY_5686__UMP_biosynthesis_g__Oxalobacter_s__Oxalobacter_formigenes
PWY_5686__UMP_biosynthesis_g__Parabacteroides_s__Parabacteroides_distasonis
PWY_5686__UMP_biosynthesis_g__Parabacteroides_s__Parabacteroides_goldsteinii
PWY_5686__UMP_biosynthesis_g__Parabacteroides_s__Parabacteroides_johnsonii
PWY_5686__UMP_biosynthesis_g__Parabacteroides_s__Parabacteroides_merdae
PWY_5686__UMP_biosynthesis_g__Parabacteroides_s__Parabacteroides_sp_20_3

PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_sp\_D13  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Pediococcus\_s\_\_Pediococcus\_acidilactici  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Pediococcus\_s\_\_Pediococcus\_lolii  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Peptostreptococcaceae\_noname\_s\_\_Clostridium\_bartlettii  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Phascolarctobacterium\_s\_\_Phascolarctobacterium\_succinatut  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Prevotella\_s\_\_Prevotella\_copri  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Propionibacterium\_s\_\_Propionibacterium\_freudenreichii  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Roseburia\_s\_\_Roseburia\_hominis  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Ruminococcaceae\_noname\_s\_\_Ruminococcaceae\_bacterium\_\_  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_champanellensis  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_australis  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_mitis\_oralis\_pneumoniae  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Subdoligranulum\_s\_\_Subdoligranulum\_sp\_4\_3\_54A2FAA  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Veillonella\_s\_\_Veillonella\_dispar  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Veillonella\_s\_\_Veillonella\_parvula  
 PWY\_5690\_\_TCA\_cycle\_II\_(plants\_and\_fungi)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Alistipes\_s\_\_Alistipes\_in  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Alistipes\_s\_\_Alistipes\_sf  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
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 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
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 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
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 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Barnesiella\_s\_\_Barnesie  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Blautia\_s\_\_Ruminococcu  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Citrobacter\_s\_\_Citrobaci  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Coprobacter\_s\_\_Coprob  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Coproccoccus\_s\_\_Coproc  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Enterobacter\_s\_\_Enteroi  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Eubacterium\_s\_\_Eubacte



PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Klebsiella\_s\_Klebsiella

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Lactococcus\_s\_Lactococcus

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Odoribacter\_s\_Odoribacter

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Parabacteroides\_s\_Parabacteroides

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Parabacteroides\_s\_Parabacteroides

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Parabacteroides\_s\_Parabacteroides

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Parabacteroides\_s\_Parabacteroides

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Parabacteroides\_s\_Parabacteroides

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Peptostreptococcaceae

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Roseburia\_s\_Roseburia

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Ruminococcus\_s\_Ruminococcus

PWY\_5705\_\_allantoin\_degradation\_to\_glyoxylate\_III\_unclassified

PWY\_5723\_\_Rubisco\_shunt\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5747\_\_2\_methylcitrate\_cycle\_II

PWY\_5747\_\_2\_methylcitrate\_cycle\_II\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5747\_\_2\_methylcitrate\_cycle\_II\_unclassified

PWY\_5791\_\_1,4\_dihydroxy\_2\_naphthoate\_biosynthesis\_II\_(plants)\_g\_Lactococcus\_s\_Lactococcus

PWY\_5837\_\_1,4\_dihydroxy\_2\_naphthoate\_biosynthesis\_I\_g\_Lactococcus\_s\_Lactococcus\_lactis

PWY\_5838\_\_superpathway\_of\_menaquinol\_8\_biosynthesis\_I\_unclassified

PWY\_5845\_\_superpathway\_of\_menaquinol\_9\_biosynthesis\_unclassified

PWY\_5850\_\_superpathway\_of\_menaquinol\_6\_biosynthesis\_I\_unclassified

PWY\_5855\_\_ubiquinol\_7\_biosynthesis\_(prokaryotic)\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5855\_\_ubiquinol\_7\_biosynthesis\_(prokaryotic)\_g\_Enterobacter\_s\_Enterobacter\_cloacae

PWY\_5855\_\_ubiquinol\_7\_biosynthesis\_(prokaryotic)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY\_5855\_\_ubiquinol\_7\_biosynthesis\_(prokaryotic)\_unclassified

PWY\_5856\_\_ubiquinol\_9\_biosynthesis\_(prokaryotic)\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5856\_\_ubiquinol\_9\_biosynthesis\_(prokaryotic)\_g\_Enterobacter\_s\_Enterobacter\_cloacae

PWY\_5856\_\_ubiquinol\_9\_biosynthesis\_(prokaryotic)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY\_5856\_\_ubiquinol\_9\_biosynthesis\_(prokaryotic)\_unclassified

PWY\_5857\_\_ubiquinol\_10\_biosynthesis\_(prokaryotic)\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5857\_\_ubiquinol\_10\_biosynthesis\_(prokaryotic)\_g\_Enterobacter\_s\_Enterobacter\_cloacae

PWY\_5857\_\_ubiquinol\_10\_biosynthesis\_(prokaryotic)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY\_5857\_\_ubiquinol\_10\_biosynthesis\_(prokaryotic)\_unclassified

PWY\_5860\_\_superpathway\_of\_demethylmenaquinol\_6\_biosynthesis\_I\_unclassified

PWY\_5861\_\_superpathway\_of\_demethylmenaquinol\_8\_biosynthesis\_unclassified

PWY\_5862\_\_superpathway\_of\_demethylmenaquinol\_9\_biosynthesis\_unclassified

PWY\_5896\_\_superpathway\_of\_menaquinol\_10\_biosynthesis\_unclassified

PWY\_5913\_\_TCA\_cycle\_VI\_(obligate\_autotrophs)\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5918\_\_superpathway\_of\_heme\_biosynthesis\_from\_glutamate\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5918\_\_superpathway\_of\_heme\_biosynthesis\_from\_glutamate\_g\_Enterobacter\_s\_Enterobacter\_cloacae

PWY\_5918\_\_superpathway\_of\_heme\_biosynthesis\_from\_glutamate\_g\_Propionibacterium\_s\_Propionibacterium

PWY\_5918\_\_superpathway\_of\_heme\_biosynthesis\_from\_glutamate\_unclassified

PWY\_5920\_\_superpathway\_of\_heme\_biosynthesis\_from\_glycine\_g\_Propionibacterium\_s\_Propionibacterium

PWY\_5920\_\_superpathway\_of\_heme\_biosynthesis\_from\_glycine\_unclassified

PWY\_5989\_\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)\_g\_Bacteroides\_s\_Bacteroides\_sp.

PWY\_5989\_\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)\_g\_Bacteroides\_s\_Bacteroides\_xylanolyticus

PWY\_5989\_\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_5989\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)\_g\_Enterobacter\_s\_Enterobacter\_cl  
PWY\_5989\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)\_g\_Haemophilus\_s\_Haemophilus\_p  
PWY\_5989\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)\_g\_Klebsiella\_s\_Klebsiella\_pneumo  
PWY\_5994\_palmitate\_biosynthesis\_I\_(animals\_and\_fungi)  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Adlercreutzia\_s\_Adlercreutzia  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Akkermansia\_s\_Akkermansia  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_finegold  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_onderdo  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_putredin  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Alistipes\_s\_Alistipes\_sp\_HGB!  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Anaerofustis\_s\_Anaerofustis  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Anaerostipes\_s\_Anaerostipes  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Anaerotruncus\_s\_Anaerotrunc  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Bilophila\_s\_Bilophila\_wadsw  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Blautia\_s\_Blautia\_hydrogenot  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Blautia\_s\_Blautia\_sp\_KLE\_173  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_gna  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_obe  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_torc  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Burkholderiales\_noname\_s\_B  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Butyrvibrio\_s\_Butyrvibrio\_cr  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Catenibacterium\_s\_Catenibac  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Clostridiales\_noname\_s\_Bact  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Clostridiales\_noname\_s\_Clost  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_as  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_cl  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_ha  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_le  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_sp  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_sp  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Collinsella\_s\_Collinsella\_intes  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Collinsella\_s\_Collinsella\_tanal  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Coprococcus\_s\_Coprococcus  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Coprococcus\_s\_Coprococcus  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Dialister\_s\_Dialister\_invisu  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Dorea\_s\_Dorea\_formicigener  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Eggerthella\_s\_Eggerthella\_ler  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Eggerthella\_s\_Eggerthella\_sp  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Eggerthella\_s\_Eggerthella\_sp  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Enterococcus\_s\_Enterococcus  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Enterococcus\_s\_Enterococcus  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Enterococcus\_s\_Enterococcus  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g>Erysipelotrichaceae\_noname\_s  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g>Erysipelotrichaceae\_noname\_s  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g>Erysipelotrichaceae\_noname\_s  
PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g>Eubacterium\_s>Eubacterium

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Eubacterium\_s\_Eubacterium\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Eubacterium\_s\_Eubacterium\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Eubacterium\_s\_Eubacterium\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Fusobacterium\_s\_Fusobacteri

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Gemella\_s\_Gemella\_sanguini

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Holdemania\_s\_Holdemania\_f

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Klebsiella\_s\_Klebsiella\_pneun

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lachnospiraceae\_noname\_s\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lachnospiraceae\_noname\_s\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lachnospiraceae\_noname\_s\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lachnospiraceae\_noname\_s\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lachnospiraceae\_noname\_s\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lactobacillus\_s\_Lactobacillus\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Lactococcus\_s\_Lactococcus\_la

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Odoribacter\_s\_Odoribacter\_la

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Odoribacter\_s\_Odoribacter\_s

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Oxalobacter\_s\_Oxalobacter\_fi

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Parasutterella\_s\_Parasutterel

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Pediococcus\_s\_Pediococcus\_a

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Pediococcus\_s\_Pediococcus\_I

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Peptostreptococcaceae\_nonam

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Phascalactobacterium\_s\_Pha

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Propionibacterium\_s\_Propion

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Roseburia\_s\_Roseburia\_homi

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Roseburia\_s\_Roseburia\_inulir

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Ruminococcaceae\_noname\_s\_

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Ruminococcus\_s\_Ruminococc

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Ruminococcus\_s\_Ruminococc

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Ruminococcus\_s\_Ruminococc

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Slackia\_s\_Slackia\_piriformis

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Solobacterium\_s\_Solobacteriu

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Subdoligranulum\_s\_Subdoligr

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Veillonella\_s\_Veillonella\_disp

PWY\_6121\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Veillonella\_s\_Veillonella\_parv

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Adlercreutzia\_s\_Adlercreutzia

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Akkermansia\_s\_Akkermansia

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Alistipes\_s\_Alistipes\_finegola

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Alistipes\_s\_Alistipes\_ponderosa

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Alistipes\_s\_Alistipes\_putredii

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Alistipes\_s\_Alistipes\_sp\_HGB

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Anaerofustis\_s>Anaerofustis\_

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Anaerostipes\_s>Anaerostipes

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Anaerotruncus\_s>Anaerotruncus

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Bacteroides\_s>Bacteroides\_s

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Bifidobacterium\_s>Bifidobact

PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Bifidobacterium\_s>Bifidobact

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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Bifidobacterium\_s\_Bifidobact  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Bilophila\_s\_Bilophila\_wadsw  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Blautia\_s\_Blautia\_hydrogeno  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Blautia\_s\_Blautia\_sp\_KLE\_17  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Blautia\_s\_Ruminococcus\_gna  
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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Blautia\_s\_Ruminococcus\_tori  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Burkholderiales\_noname\_s\_\_E  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Butyrvibrio\_s\_Butyrvibrio\_c  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Catenibacterium\_s\_Cateniba  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Clostridiales\_noname\_s\_\_Bact  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Clostridiales\_noname\_s\_\_Clos  
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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Clostridium\_s\_\_Clostridium\_p  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Clostridium\_s\_\_Clostridium\_sp  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Clostridium\_s\_\_Clostridium\_sp  
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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Collinsella\_s\_\_Collinsella\_tana  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Coprococcus\_s\_\_Coprococcus  
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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Dialister\_s\_\_Dialister\_invisus  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Dorea\_s\_\_Dorea\_formicigener  
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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Enterobacter\_s\_\_Enterobacter  
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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Enterococcus\_s\_\_Enterococcu  
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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Erysipelotrichaceae\_noname\_  
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PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Eubacterium\_s\_\_Eubacterium  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Eubacterium\_s\_\_Eubacterium  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Eubacterium\_s\_\_Eubacterium  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Eubacterium\_s\_\_Eubacterium  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Fusobacterium\_s\_\_Fusobacter  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Gemella\_s\_\_Gemella\_sanguin  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Holdemania\_s\_\_Holdemania\_  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Klebsiella\_s\_\_Klebsiella\_pneu  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g>Lachnospiraceae\_noname\_s\_\_

PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Lachnospiraceae\_noname\_s  
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PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Lactobacillus\_s\_Lactobacillus  
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PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Parasutterella\_s\_Parasuttere  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Pediococcus\_s\_Pediococcus\_  
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PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Phascolarctobacterium\_s\_Ph  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Propionibacterium\_s\_Propior  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Roseburia\_s\_Roseburia\_hom  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Roseburia\_s\_Roseburia\_inuli  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Ruminococcaceae\_noname\_s  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Ruminococcus\_s\_Ruminococ  
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PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Solobacterium\_s\_Solobacteri  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Streptococcus\_s\_Streptococc  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Subdoligranulum\_s\_Subdolidig  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Veillonella\_s\_Veillonella\_dis  
PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Veillonella\_s\_Veillonella\_par  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_faecis  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_fineworldii  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_ovatus  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_salyersiae  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30  
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PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaomi  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvans  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridium\_perfringens  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Coproccoccus\_s\_Coproccoccus\_catus  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Coproccoccus\_s\_Coproccoccus\_eutactus  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Coproccoccus\_s\_Coproccoccus\_sp\_ART55\_  
PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Enterobacter\_s\_Enterobacter Cloacae

PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Enterococcus\_s\_\_Enterococcus\_faecium  
PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_siraeum  
PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospira  
PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_casei\_para  
PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_champa  
PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_mitis\_or  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_faecis  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_finegoldii  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatus  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_salyersiae  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_30  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_6  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_1\_22  
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PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_thetaiotaom  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylanisolven  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_perfringens  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_L2\_50  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Coprococcus\_s\_\_Coprococcus\_catus  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Coprococcus\_s\_\_Coprococcus\_eutactus  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Coprococcus\_s\_\_Coprococcus\_sp\_ART55  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Enterococcus\_s\_\_Enterococcus\_faecium  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Eubacterium\_s\_\_Eubacterium\_siraeum  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Fusobacterium\_s\_\_Fusobacterium\_nuclea  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospira  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_casei\_para  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Lactobacillus\_s\_\_Lactobacillus\_rhamnosu  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_champa  
PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_mitis\_or  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Actinomyces  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides  
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PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Burkholderia  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Citrobacter\_s  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Clostridium  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Eggerthella\_s  
PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Eggerthella\_s

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Eggerthella\_s

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Klebsiella\_s

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Parasutterell

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Streptococcu

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Streptococcu

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Veillonella\_s

PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Veillonella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Citrobacter\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Clostridiales

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Clostridium

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Clostridium

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Collinsella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Collinsella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Eggerthella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Eggerthella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Eggerthella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Eggerthella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Faecalibacter

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Holdemania

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Klebsiella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Oxalobacter

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Slackia\_s\_Sl

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Solobacteriu

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Streptococcu

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Streptococcu

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Veillonella\_s

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Veillonella\_s

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Ba

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Ba

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Ba

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Ba

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Ba

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Ba

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Citrobacter\_s\_Citr

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Streptococcus\_s\_s

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Veillonella\_s\_Veill

PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Veillonella\_s\_Veill

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Actinomyces\_s\_Actinomyces\_odontolyticus

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g>Anaerotruncus\_s\_Anaerotruncus\_colihominis

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Bacteroides\_s\_Bacteroides\_dorei

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Bacteroides\_s\_Bacteroides\_eggerthii

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bacteroides\_s\_Bacteroides\_massiliensis  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_33FAA  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_40A  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_4\_3\_47FAA  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_9\_1\_42FAA  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bacteroides\_s\_Bacteroides\_sp\_D20  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bacteroides\_s\_Bacteroides\_stercoris  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bacteroides\_s\_Bacteroides\_uniformis  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Barnesiella\_s\_Barnesiella\_intestinihominis  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bifidobacterium\_s\_Bifidobacterium\_angulatu  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bifidobacterium\_s\_Bifidobacterium\_animalis  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Bifidobacterium\_s\_Bifidobacterium\_dentium  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Blautia\_s\_Blautia\_hydrogenotrophica  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Blautia\_s\_Ruminococcus\_gnavus  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Blautia\_s\_Ruminococcus\_obeum  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Butyrivibrio\_s\_Butyrivibrio\_crossotus  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Catenibacterium\_s\_Catenibacterium\_mitsuoi  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridiales\_noname\_s\_Bacteroides\_pectinc  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridiales\_noname\_s\_Clostridiales\_bacter  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridium\_s\_Clostridium\_asparagiforme  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridium\_s\_Clostridium\_citroniae  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridium\_s\_Clostridium\_clostridioforme  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridium\_s\_Clostridium\_hathewayi  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridium\_s\_Clostridium\_leptum  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridium\_s\_Clostridium\_perfringens  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridium\_s\_Clostridium\_sp\_L2\_50  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Coprobacter\_s\_Coprobacter\_fastidiosus  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Coprococcus\_s\_Coprococcus\_catus  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Coprococcus\_s\_Coprococcus\_eutactus  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Coprococcus\_s\_Coprococcus\_sp\_ART55\_1  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Dorea\_s\_Dorea\_formicigenerans  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Erysipelotrichaceae\_noname\_s\_Clostridium\_  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Erysipelotrichaceae\_noname\_s\_Erysipelotricl  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Erysipelotrichaceae\_noname\_s\_Eubacterium\_  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Erysipelotrichaceae\_noname\_s\_Eubacterium\_  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Eubacterium\_s\_Eubacterium\_eligens  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Eubacterium\_s\_Eubacterium\_hallii  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Eubacterium\_s\_Eubacterium\_sp\_3\_1\_31  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Eubacterium\_s\_Eubacterium\_ventriosum  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Fusobacterium\_s\_Fusobacterium\_nucleatum  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Gemella\_s\_Gemella\_sanguinis  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae



PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Lactobacillus\_s\_Lactobacillus\_casei\_paracase

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Lactobacillus\_s\_Lactobacillus\_fermentum

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Lactobacillus\_s\_Lactobacillus\_rhamnosus

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Lactobacillus\_s\_Lactobacillus\_ruminis

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Odoribacter\_s\_Odoribacter\_laneus

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Paraprevotella\_s\_Paraprevotella\_clara

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Peptostreptococcaceae\_noname\_s\_Clostridium

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Prevotella\_s\_Prevotella\_copri

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Propionibacterium\_s\_Propionibacterium\_fre

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Roseburia\_s\_Roseburia\_inulinivorans

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Ruminococcus\_s\_Ruminococcus\_callidus

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Ruminococcus\_s\_Ruminococcus\_champanell

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Ruminococcus\_s\_Ruminococcus\_sp

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Slackia\_s\_Slackia\_piriformis

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Streptococcus\_s\_Streptococcus\_australis

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Streptococcus\_s\_Streptococcus\_mitis\_oralis

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Streptococcus\_s\_Streptococcus\_sanguinis

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_l\_g\_Subdoligranulum\_s\_Subdoligranulum\_sp\_4\_3

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Akkermansia\_s\_Akkermansia

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Alistipes\_s\_Alistipes\_finegold

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Alistipes\_s\_Alistipes\_shahii

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Alistipes\_s\_Alistipes\_sp\_HGE

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g>Anaerostipes\_s>Anaerostipes

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g>Anaerotruncus\_s>Anaerotruncus

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Bacteroides\_s\_Bacteroides\_f

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Bilophila\_s\_Bilophila\_wadsw

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Blautia\_s\_Blautia\_sp\_KLE\_17

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Blautia\_s\_Ruminococcus\_gn

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Blautia\_s\_Ruminococcus\_obe

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Burkholderiales\_noname\_s\_l

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Butyrivibrio\_s\_Butyrivibrio\_c

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Citrobacter\_s\_Citrobacter\_fr

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridiales\_noname\_s\_Clos

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridium\_s\_Clostridium\_a

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridium\_s\_Clostridium\_b

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridium\_s\_Clostridium\_c

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridium\_s\_Clostridium\_h

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridium\_s\_Clostridium\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridium\_s\_Clostridium\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridium\_s\_Clostridium\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Clostridium\_s\_Clostridium\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Coproccoccus\_s\_Coproccoccus

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Dorea\_s\_Dorea\_formicigenes

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Dorea\_s\_Dorea\_longicatena

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_Enterococcus\_s\_Enterococcus

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Erysipelotrichaceae\_noname\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Erysipelotrichaceae\_noname\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Eubacterium\_s\_\_Eubacterium

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Eubacterium\_s\_\_Eubacterium

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Eubacterium\_s\_\_Eubacterium

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Eubacterium\_s\_\_Eubacterium

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Fusobacterium\_s\_\_Fusobacter

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneu

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Lachnospiraceae\_noname\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Lachnospiraceae\_noname\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Lachnospiraceae\_noname\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Lachnospiraceae\_noname\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Lachnospiraceae\_noname\_s

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Lactobacillus\_s\_\_Lactobacillus

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Lactococcus\_s\_\_Lactococcus

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Parasutterella\_s\_\_Parasuttere

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Peptostreptococcaceae\_nonar

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Phascolarctobacterium\_s\_\_Ph

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Propionibacterium\_s\_\_Propio

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Roseburia\_s\_\_Roseburia\_hom

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Roseburia\_s\_\_Roseburia\_inuli

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Ruminococcus\_s\_\_Ruminococ

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Ruminococcus\_s\_\_Ruminococ

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Ruminococcus\_s\_\_Ruminococ

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Streptococcus\_s\_\_Streptococ

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinat\_e\_g\_\_Streptococcus\_s\_\_Streptococ

PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus

PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_g\_\_Bacteroides\_s\_\_Bacteroides\_faecis

PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_6

PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_g\_\_Bacteroides\_s\_\_Bacteroides\_thetaiotaomicron

PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii

PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_1

PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_ba

PWY\_6185\_\_4\_methylcatechol\_degradation\_(ortho\_cleavage)

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadr

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Clostridiales\_noname\_s\_\_Clostridiale

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_L2\_5

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_eutact

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_sp\_AR

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Enterococcus\_s\_\_Enterococcus\_faeci

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnc

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Streptococcus\_s\_\_Streptococcus\_mit  
PWY\_622\_\_starch\_biosynthesis  
PWY\_6263\_\_superpathway\_of\_menaquinol\_8\_biosynthesis\_II  
PWY\_6270\_\_isoprene\_biosynthesis\_I\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWY\_6270\_\_isoprene\_biosynthesis\_I\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
PWY\_6270\_\_isoprene\_biosynthesis\_I\_g\_\_Phascolarctobacterium\_s\_\_Phascolarctobacterium\_succi  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Adlercreutzia\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Akkermansia\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Alistipes\_s\_\_A  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Alistipes\_s\_\_A  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Alistipes\_s\_\_A  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Alistipes\_s\_\_A  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Anaerofustis\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Anaerostipes\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Anaerotruncus\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Bacteroides\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Bifidobacteriu  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Bifidobacteriu  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Bifidobacteriu  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Bifidobacteriu  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Bifidobacteriu  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Bilophila\_s\_\_E  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Blautia\_s\_\_Bl  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Blautia\_s\_\_Bl  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Blautia\_s\_\_Ru  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Blautia\_s\_\_Ru  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Blautia\_s\_\_Ru  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Burkholderiale  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Butyrivibrio\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Catenibacteriu  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Clostridiales\_r  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Clostridiales\_r  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Clostridium\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Clostridium\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Clostridium\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Clostridium\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Clostridium\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Clostridium\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Collinsella\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Collinsella\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Coproccoccus\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Coproccoccus\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Dialister\_s\_\_D  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Dorea\_s\_\_Dor  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Eggerthella\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_\_Eggerthella\_s\_

PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Eggerthella\_s  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Enterobacter\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Enterococcus\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Enterococcus\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Enterorhabdu  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Erysipelotricha  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Erysipelotricha  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Erysipelotricha  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Eubacterium\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Eubacterium\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Eubacterium\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Eubacterium\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Fusobacterium  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Gemella\_s\_G  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Holdemania\_s  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Klebsiella\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lachnospirace  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lachnospirace  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lachnospirace  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lachnospirace  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lachnospirace  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lactobacillus\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lactobacillus\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lactobacillus\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Odoribacter\_s  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Odoribacter\_s  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Oxalobacter\_s  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Parasutterella  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Pediococcus\_s  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Pediococcus\_s  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Peptostreptoc  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Phascolarctob  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Propionibacte  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Roseburia\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Roseburia\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Ruminococcac  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Ruminococcus  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Ruminococcus  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Ruminococcus  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Slackia\_s\_Sla  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Solobacterium  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Streptococcus  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Subdoligranuli  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Veillonella\_s\_  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Veillonella\_s\_

PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)\_g\_\_Bacteroides\_s\_\_Bacte  
 PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)\_g\_\_Bacteroides\_s\_\_Bacte  
 PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)\_g\_\_Citrobacter\_s\_\_Citrob  
 PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)\_g\_\_Enterobacter\_s\_\_Ente  
 PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)\_g\_\_Haemophilus\_s\_\_Hae  
 PWY\_6282\_\_palmitoleate\_biosynthesis\_I\_(from\_(5Z)\_dodec\_5\_enoate)\_g\_\_Klebsiella\_s\_\_Klebsiel  
 PWY\_6285\_\_superpathway\_of\_fatty\_acids\_biosynthesis\_(E\_coli)\_unclassified  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_\_Odoribacter\_s\_\_Odoribacter\_splanchnicus  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_champanellensis  
 PWY\_6307\_\_L\_tryptophan\_degradation\_X\_(mammalian,\_via\_tryptamine)  
 PWY\_6313\_\_serotonin\_degradation  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadru  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Clostridium\_s\_\_Clostridium\_asparagif  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_1  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Enterococcus\_s\_\_Enterococcus\_duran  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Enterococcus\_s\_\_Enterococcus\_faeci  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Eubacterium\_s\_\_Eubacterium\_siraur  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Fusobacterium\_s\_\_Fusobacterium\_nu  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachno:  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachno:  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Streptococcus\_s\_\_Streptococcus\_para  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Streptococcus\_s\_\_Streptococcus\_sang  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Anaerofustis\_s\_\_Anaerofustis\_ste  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_fine  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovat  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_4  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_xyla  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bifidobacterium\_s\_\_Bifidobacteri  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freun  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Clostridium\_s\_\_Clostridium\_perfr  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Eggerthella\_s\_\_Eggerthella\_lenta  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Eggerthella\_s\_\_Eggerthella\_sp\_1  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Eggerthella\_s\_\_Eggerthella\_sp\_H











PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_conf)  
PWY\_6396\_\_superpathway\_of\_2,3\_butanediol\_biosynthesis\_unclassified  
PWY\_6435\_\_4\_hydroxybenzoate\_biosynthesis\_V  
PWY\_6435\_\_4\_hydroxybenzoate\_biosynthesis\_V\_unclassified  
PWY\_6471\_\_peptidoglycan\_biosynthesis\_IV\_(Enterococcus\_faecium)\_g\_Streptococcus\_s\_Streptococcus  
PWY\_6507\_\_4\_deoxy\_L\_threo\_hex\_4\_enuopyranuronate\_degradation\_g\_Citrobacter\_s\_Citrobacter  
PWY\_6507\_\_4\_deoxy\_L\_threo\_hex\_4\_enuopyranuronate\_degradation\_g\_Clostridiales\_noname\_s\_Clostridiales  
PWY\_6507\_\_4\_deoxy\_L\_threo\_hex\_4\_enuopyranuronate\_degradation\_g\_Enterobacter\_s\_Enterobacter  
PWY\_6507\_\_4\_deoxy\_L\_threo\_hex\_4\_enuopyranuronate\_degradation\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_xylanisolans  
PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I\_g\_Haemophilus\_s\_Haemophilus\_parainfluenzae  
PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
PWY\_6527\_\_stachyose\_degradation\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
PWY\_6527\_\_stachyose\_degradation\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_6527\_\_stachyose\_degradation\_g\_Coprococcus\_s\_Coprococcus\_eutactus  
PWY\_6527\_\_stachyose\_degradation\_g\_Coprococcus\_s\_Coprococcus\_sp\_ART55\_1  
PWY\_6527\_\_stachyose\_degradation\_g\_Eubacterium\_s\_Eubacterium\_siraeum  
PWY\_6527\_\_stachyose\_degradation\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae\_bacterium  
PWY\_6527\_\_stachyose\_degradation\_g\_Lactobacillus\_s\_Lactobacillus\_casei\_paracasei  
PWY\_6527\_\_stachyose\_degradation\_g\_Lactobacillus\_s\_Lactobacillus\_rhamnosus  
PWY\_6527\_\_stachyose\_degradation\_g\_Roseburia\_s\_Roseburia\_intestinalis  
PWY\_6527\_\_stachyose\_degradation\_g\_Ruminococcus\_s\_Ruminococcus\_sp  
PWY\_6527\_\_stachyose\_degradation\_g\_Streptococcus\_s\_Streptococcus\_parasanguinis  
PWY\_6531\_\_mannitol\_cycle\_g\_Escherichia\_s\_Escherichia\_coli  
PWY\_6531\_\_mannitol\_cycle\_unclassified  
PWY\_6545\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_III\_g\_Eggerthella\_s\_Eggerthella  
PWY\_6545\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_III\_g\_Eggerthella\_s\_Eggerthella  
PWY\_6545\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_III\_g\_Eggerthella\_s\_Eggerthella  
PWY\_6545\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_III\_g\_Haemophilus\_s\_Haemophilus  
PWY\_6545\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_III\_g\_Slackia\_s\_Slackia\_pneumoniae  
PWY\_6588\_\_pyruvate\_fermentation\_to\_acetone\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
PWY\_6588\_\_pyruvate\_fermentation\_to\_acetone\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1  
PWY\_6588\_\_pyruvate\_fermentation\_to\_acetone\_g\_Lachnospiraceae\_noname\_s\_Lachnospiraceae  
PWY\_6590\_\_superpathway\_of\_Clostridium\_acetobutylicum\_acidogenic\_fermentation\_unclassified  
PWY\_6595\_\_superpathway\_of\_guanosine\_nucleotides\_degradation\_(plants)\_g\_Blautia\_s\_Ruminococcus

PWY\_6606\_guanosine\_nucleotides\_degradation\_II\_g\_Blautia\_s\_Ruminococcus\_obeum  
PWY\_6608\_guanosine\_nucleotides\_degradation\_III\_g\_Blautia\_s\_Ruminococcus\_obeum  
PWY\_6608\_guanosine\_nucleotides\_degradation\_III\_g\_Coprococcus\_s\_Coprococcus\_catus  
PWY\_6608\_guanosine\_nucleotides\_degradation\_III\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
PWY\_6608\_guanosine\_nucleotides\_degradation\_III\_g\_Odoribacter\_s\_Odoribacter\_splanchnicu  
PWY\_6608\_guanosine\_nucleotides\_degradation\_III\_g\_Parabacteroides\_s\_Parabacteroides\_joh  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Alistipes\_s\_Alistipes\_senegalensis  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Alistipes\_s\_Alistipes\_shahii  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Anaerofustis\_s\_Anaerofustis\_stercorihomii  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Anaerotruncus\_s\_Anaerotruncus\_colihomii  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_faecis  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_finegoldii  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_ovatus  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaomicr  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Blautia\_s\_Ruminococcus\_gnavus  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Clostridiales\_noname\_s\_Clostridiales\_bact  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Clostridium\_s\_Clostridium\_asparagiforme  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Clostridium\_s\_Clostridium\_perfringens  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Collinsella\_s\_Collinsella\_intestinalis  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Coprococcus\_s\_Coprococcus\_catus  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Eggerthella\_s\_Eggerthella\_lenta  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Eggerthella\_s\_Eggerthella\_sp\_1\_3\_56FAA  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Eggerthella\_s\_Eggerthella\_sp\_HGA1  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Erysipelotrichaceae\_noname\_s\_Clostridium  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Erysipelotrichaceae\_noname\_s\_Eubacteriu  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Erysipelotrichaceae\_noname\_s\_Eubacteriu  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Holdemania\_s\_Holdemania\_filiformis  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Lactobacillus\_s\_Lactobacillus\_casei\_paraca  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Pediococcus\_s\_Pediococcus\_acidilactici  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Ruminococcus\_s\_Ruminococcus\_champane  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Streptococcus\_s\_Streptococcus\_australis  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Streptococcus\_s\_Streptococcus\_mitis\_orali  
PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Streptococcus\_s\_Streptococcus\_sanguinis  
PWY\_6612\_superpathway\_of\_tetrahydrofolate\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_lac

PWY\_6628\_\_superpathway\_of\_L\_phenylalanine\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_6628\_\_superpathway\_of\_L\_phenylalanine\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY\_6628\_\_superpathway\_of\_L\_phenylalanine\_biosynthesis\_g\_Propionibacterium\_s\_Propionibacterium

PWY\_6629\_\_superpathway\_of\_L\_tryptophan\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_6629\_\_superpathway\_of\_L\_tryptophan\_biosynthesis\_unclassified

PWY\_6630\_\_superpathway\_of\_L\_tyrosine\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_6630\_\_superpathway\_of\_L\_tyrosine\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY\_6630\_\_superpathway\_of\_L\_tyrosine\_biosynthesis\_g\_Propionibacterium\_s\_Propionibacterium

PWY\_6690\_\_cinnamate\_and\_3\_hydroxycinnamate\_degradation\_to\_2\_oxopent\_4\_enoate\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_6690\_\_cinnamate\_and\_3\_hydroxycinnamate\_degradation\_to\_2\_oxopent\_4\_enoate\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Adlercreutzia\_s\_Adlercreutzia\_equolifaciens

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Akkermansia\_s\_Akkermansia\_muciniphila

PWY\_6700\_\_queuosine\_biosynthesis\_g>Anaerostipes\_s>Anaerostipes\_hadrus

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_cellulosilyticus

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_coprocola

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_dorei

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_eggerthii

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_faecis

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_finegoldii

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_fragilis

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_massiliensis

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_ovatus

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_plebeius

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_19

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_33FAA

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_40A

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_4\_3\_47FAA

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_9\_1\_42FAA

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_D20

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_stercoris

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaomicron

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_uniformis

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvans

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Barnesiella\_s\_Barnesiella\_intestinihominis

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bilophila\_s\_Bilophila\_wadsworthia

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Blautia\_s\_Blautia\_hydrogenotrophica

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Burkholderiales\_noname\_s\_Burkholderiales\_bacterium

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Butyrvibrio\_s\_Butyrvibrio\_crossotus

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_6700\_\_queuosine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_sp\_L2\_50

PWY_6700__queuosine_biosynthesis_g__Clostridium_s__Clostridium_sp_SS2_1
PWY_6700__queuosine_biosynthesis_g__Copro bacter_s__Copro bacter_fastidiosus
PWY_6700__queuosine_biosynthesis_g__Copro coccus_s__Copro coccus_catus
PWY_6700__queuosine_biosynthesis_g__Copro coccus_s__Copro coccus_eutactus
PWY_6700__queuosine_biosynthesis_g__Copro coccus_s__Copro coccus_sp_ART55_1
PWY_6700__queuosine_biosynthesis_g__Dialister_s__Dialister_invisus
PWY_6700__queuosine_biosynthesis_g__Enterobacter_s__Enterobacter_cloacae
PWY_6700__queuosine_biosynthesis_g__Enterococcus_s__Enterococcus_faecalis
PWY_6700__queuosine_biosynthesis_g__Enterococcus_s__Enterococcus_faecium
PWY_6700__queuosine_biosynthesis_g__Enterorhabdus_s__Enterorhabdus_caecimuris
PWY_6700__queuosine_biosynthesis_g__Eubacterium_s__Eubacterium_hallii
PWY_6700__queuosine_biosynthesis_g__Klebsiella_s__Klebsiella_pneumoniae
PWY_6700__queuosine_biosynthesis_g__Lachnospiraceae_noname_s__Lachnospiraceae_bacteriu
PWY_6700__queuosine_biosynthesis_g__Megasphaera_s__Megasphaera_micronuciformis
PWY_6700__queuosine_biosynthesis_g__Odoribacter_s__Odoribacter_laneus
PWY_6700__queuosine_biosynthesis_g__Odoribacter_s__Odoribacter_splanchnicus
PWY_6700__queuosine_biosynthesis_g__Oxalobacter_s__Oxalobacter_formigenes
PWY_6700__queuosine_biosynthesis_g__Parabacteroides_s__Parabacteroides_distasonis
PWY_6700__queuosine_biosynthesis_g__Parabacteroides_s__Parabacteroides_johnsonii
PWY_6700__queuosine_biosynthesis_g__Parabacteroides_s__Parabacteroides_sp_20_3
PWY_6700__queuosine_biosynthesis_g__Parabacteroides_s__Parabacteroides_sp_D13
PWY_6700__queuosine_biosynthesis_g__Paraprevotella_s__Paraprevotella_clara
PWY_6700__queuosine_biosynthesis_g__Parasutterella_s__Parasutterella_excrementihominis
PWY_6700__queuosine_biosynthesis_g__Peptostreptococcaceae_noname_s__Clostridium_bartlet
PWY_6700__queuosine_biosynthesis_g__Phascolarctobacterium_s__Phascolarctobacterium_succi
PWY_6700__queuosine_biosynthesis_g__Prevotella_s__Prevotella_copri
PWY_6700__queuosine_biosynthesis_g__Ruminococcus_s__Ruminococcus_callidus
PWY_6700__queuosine_biosynthesis_g__Ruminococcus_s__Ruminococcus_sp
PWY_6700__queuosine_biosynthesis_g__Streptococcus_s__Streptococcus_mitis_oralis_pneumoni
PWY_6700__queuosine_biosynthesis_g__Veillonella_s__Veillonella_dispar
PWY_6700__queuosine_biosynthesis_g__Veillonella_s__Veillonella_parvula
PWY_6703__preQO_biosynthesis_g__Adlercreutzia_s__Adlercreutzia_equolifaciens
PWY_6703__preQO_biosynthesis_g__Akkermansia_s__Akkermansia_muciniphila
PWY_6703__preQO_biosynthesis_g__Alistipes_s__Alistipes_putredinis
PWY_6703__preQO_biosynthesis_g__Anaerostipes_s__Anaerostipes_hadrus
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_cellulosilyticus
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_clarus
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_dorei
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_eggerthii
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_faecis
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_fragilis
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_massiliensis
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_ovatus
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_plebeius
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_sp_1_1_30
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_sp_1_1_6
PWY_6703__preQO_biosynthesis_g__Bacteroides_s__Bacteroides_sp_2_1_22

PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_2\_4  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_19  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_23  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_33FAA  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_40A  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_4\_3\_47FAA  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_9\_1\_42FAA  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_D20  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_stercoris  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_thetaiotaomicron  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_uniformis  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylanisolvens  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Barnesiella\_s\_\_Barnesiella\_intestinihominis  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bilophila\_s\_\_Bilophila\_wadsworthia  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Butyrivibrio\_s\_\_Butyrivibrio\_crossotus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_L2\_50  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_1  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Copro bacter\_s\_\_Copro bacter\_fastidiosus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Copro coccus\_s\_\_Copro coccus\_catus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Copro coccus\_s\_\_Copro coccus\_eutactus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Dialister\_s\_\_Dialister\_invisus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Eubacterium\_s\_\_Eubacterium\_hallii  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Eubacterium\_s\_\_Eubacterium\_ramulus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacterium\_5  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Odoribacter\_s\_\_Odoribacter\_laneus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Odoribacter\_s\_\_Odoribacter\_splanchnicus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_distasonis  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_merdae  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_sp\_20\_3  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Parabacteroides\_s\_\_Parabacteroides\_sp\_D13  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Peptostreptococcaceae\_noname\_s\_\_Clostridium\_bartlettii  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_callidus  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_lactaris  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_mitis\_oralis\_pneumoniae  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Veillonella\_s\_\_Veillonella\_dispar  
PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Veillonella\_s\_\_Veillonella\_parvula  
PWY\_6708\_\_ubiquinol\_8\_biosynthesis\_(prokaryotic)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWY\_6708\_\_ubiquinol\_8\_biosynthesis\_(prokaryotic)\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
PWY\_6708\_\_ubiquinol\_8\_biosynthesis\_(prokaryotic)\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
PWY\_6708\_\_ubiquinol\_8\_biosynthesis\_(prokaryotic)\_unclassified  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Akkermansia\_s\_\_Akkermansia\_muciniphila  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Alistipes\_s\_\_Alistipes\_finegoldii  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Alistipes\_s\_\_Alistipes\_sp\_HGB5

PWY\_6737\_\_starch\_degradation\_V\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Anaerotruncus\_s\_\_Anaerotruncus\_colihominis  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_dentium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_1732  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Blautia\_s\_\_Ruminococcus\_gnavus  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Butyrivibrio\_s\_\_Butyrivibrio\_crossotus  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Catenibacterium\_s\_\_Catenibacterium\_mitsuokai  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridiales\_noname\_s\_\_Clostridiales\_bacterium\_1\_7\_47  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_asparagiforme  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_bolteae  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_citroniae  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_clostridioforme  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_hathewayi  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_leptum  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_perfringens  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_1  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Clostridium\_s\_\_Clostridium\_symbiosum  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Coprococcus\_s\_\_Coprococcus\_catus  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Dorea\_s\_\_Dorea\_formicigenerans  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Erysipelotrichaceae\_noname\_s\_\_Eubacterium\_biforme  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Eubacterium\_s\_\_Eubacterium\_hallii  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Eubacterium\_s\_\_Eubacterium\_ramulus  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Eubacterium\_s\_\_Eubacterium\_siraeum  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Eubacterium\_s\_\_Eubacterium\_ventriosum  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Fusobacterium\_s\_\_Fusobacterium\_nucleatum  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacterium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacterium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacterium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacterium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacterium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacterium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_bacterium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Roseburia\_s\_\_Roseburia\_hominis  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Roseburia\_s\_\_Roseburia\_inulinivorans  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Ruminococcaceae\_noname\_s\_\_Ruminococcaceae\_bacterium  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Streptococcus\_s\_\_Streptococcus\_australis  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Streptococcus\_s\_\_Streptococcus\_sanguinis  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Subdoligranulum\_s\_\_Subdoligranulum\_sp\_4\_3\_54A2FAA  
PWY\_6785\_\_hydrogen\_production\_VIII  
PWY\_6785\_\_hydrogen\_production\_VIII\_unclassified  
PWY\_6803\_\_phosphatidylcholine\_acyl\_editing\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWY\_6803\_\_phosphatidylcholine\_acyl\_editing\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
PWY\_6803\_\_phosphatidylcholine\_acyl\_editing\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
PWY\_6823\_\_molybdenum\_cofactor\_biosynthesis\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWY\_6823\_\_molybdenum\_cofactor\_biosynthesis\_unclassified







PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Klebsiella\_s\_\_Klebsiella\_pne  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Lachnospiraceae\_noname\_s  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Lachnospiraceae\_noname\_s  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Lachnospiraceae\_noname\_s  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Lachnospiraceae\_noname\_s  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Lachnospiraceae\_noname\_s  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Lachnospiraceae\_noname\_s  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Lachnospiraceae\_noname\_s  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Odoribacter\_s\_\_Odoribacter  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Odoribacter\_s\_\_Odoribacter  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Oxalobacter\_s\_\_Oxalobacter  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Parabacteroides\_s\_\_Paraba  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Parabacteroides\_s\_\_Paraba  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Parabacteroides\_s\_\_Paraba  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Parabacteroides\_s\_\_Paraba  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Parabacteroides\_s\_\_Paraba  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Parabacteroides\_s\_\_Paraba  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Paraprevotella\_s\_\_Paraprev  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Paraprevotella\_s\_\_Paraprev  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Parasutterella\_s\_\_Parasutte  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Peptostreptococcaceae\_non  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Phascolarctobacterium\_s\_\_F  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Propionibacterium\_s\_\_Prop  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Ruminococcaceae\_noname\_  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Ruminococcus\_s\_\_Ruminoc  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Ruminococcus\_s\_\_Ruminoc  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Streptococcus\_s\_\_Streptoco  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Streptococcus\_s\_\_Streptoco  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Streptococcus\_s\_\_Streptoco  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Streptococcus\_s\_\_Streptoco  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Subdoligranulum\_s\_\_Subdol  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Veillonella\_s\_\_Veillonella\_d  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Veillonella\_s\_\_Veillonella\_p  
PWY\_7118\_\_chitin\_degradation\_to\_ethanol  
PWY\_7165\_\_L\_ascorbate\_biosynthesis\_VI\_(engineered\_pathway)  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Burkholderiales\_nona  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Citrobacter\_s\_\_Citrob  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Eggerthella\_s\_\_Egger  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Klebsiella\_s\_\_Klebsiel  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Parasutterella\_s\_\_Par  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Veillonella\_s\_\_Veillon  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Veillonella\_s\_\_Veillon  
PWY\_7187\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Klebsiella\_s\_\_Klebsie  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Actinomyces\_s\_\_Actinomyces\_  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Adlercreutzia\_s\_\_Adlercreutzia  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Akkermansia\_s\_\_Akkermansia  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Bilophila\_s\_\_Bilophila\_wadsw  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Burkholderiales\_noname\_s\_\_E  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Citrobacter\_s\_\_Citrobacter\_fre

PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Collinsella\_s\_Collinsella\_inte  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Collinsella\_s\_Collinsella\_tana  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Dialister\_s\_Dialister\_invisus  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Eggerthella\_s\_Eggerthella\_le  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Eggerthella\_s\_Eggerthella\_sp  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Eggerthella\_s\_Eggerthella\_sp  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Enterorhabdus\_s\_Enterorhab  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Klebsiella\_s\_Klebsiella\_pneur  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Methanobrevibacter\_s\_Meth  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Parasutterella\_s\_Parasutterel  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Pediococcus\_s\_Pediococcus\_  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Phascolarctobacterium\_s\_Ph  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Propionibacterium\_s\_Propior  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Slackia\_s\_Slackia\_piriformis  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Streptococcus\_s\_Streptococc  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Veillonella\_s\_Veillonella\_dis  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Veillonella\_s\_Veillonella\_par  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Alistipes\_s\_Alistipes\_finegoldii  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Alistipes\_s\_Alistipes\_sp\_HGB5  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Enterobacter\_s\_Enterobacter\_cloaca  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Enterococcus\_s\_Enterococcus\_faecal  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Enterococcus\_s\_Enterococcus\_faeci  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Lactococcus\_s\_Lactococcus\_lactis  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Streptococcus\_s\_Streptococcus\_mit  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Streptococcus\_s\_Streptococcus\_ther  
PWY\_7200\_\_superpathway\_of\_pyrimidine\_deoxyribonucleoside\_salvage  
PWY\_7204\_\_pyridoxal\_5\_\_phosphate\_salvage\_II\_(plants)\_unclassified  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Actinomyces\_s\_Actinomyce  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Adlercreutzia\_s\_Adlercreutz  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Akkermansia\_s\_Akkermansi  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Bilophila\_s\_Bilophila\_wads  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Blautia\_s\_Ruminococcus\_ok  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Burkholderiales\_noname\_s\_  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Citrobacter\_s\_Citrobacter\_f  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Clostridium\_s\_Clostridium\_  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Collinsella\_s\_Collinsella\_int  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Collinsella\_s\_Collinsella\_tar  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Coprococcus\_s\_Coprococcu  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Coprococcus\_s\_Coprococcu  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Dialister\_s\_Dialister\_invisus  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Enterobacter\_s\_Enterobacte  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Enterorhabdus\_s\_Enterorha  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Eubacterium\_s\_Eubacteriun  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Gordonibacter\_s\_Gordoniba



PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_s  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_s  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_s  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_t  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_u  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_x  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Barnesiella\_s\_\_Barnesiella\_int  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobac  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bilophila\_s\_\_Bilophila\_wadsw  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Blautia\_s\_\_Blautia\_hydrogenc  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Blautia\_s\_\_Blautia\_sp\_KLE\_17  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Blautia\_s\_\_Ruminococcus\_gnā  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Blautia\_s\_\_Ruminococcus\_obē  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Burkholderiales\_noname\_s\_\_l  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Butyrivibrio\_s\_\_Butyrivibrio\_c  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Catenibacterium\_s\_\_Cateniba  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Citrobacter\_s\_\_Citrobacter\_fr  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridiales\_noname\_s\_\_Bac  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridiales\_noname\_s\_\_Clos  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_a  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_b  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_c  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_c  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_h  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_le  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_p  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_s  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_s  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Clostridium\_s\_\_Clostridium\_s  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Collinsella\_s\_\_Collinsella\_inte  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Collinsella\_s\_\_Collinsella\_tanā  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Copro bacter\_s\_\_Copro bacter\_  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Coproco ccus\_s\_\_Coproco ccus\_  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Coproco ccus\_s\_\_Coproco ccus\_  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Coproco ccus\_s\_\_Coproco ccus\_  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Dialister\_s\_\_Dialister\_invisus  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Dorea\_s\_\_Dorea\_formicigene  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Eggerthella\_s\_\_Eggerthella\_le  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Eggerthella\_s\_\_Eggerthella\_sp  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Eggerthella\_s\_\_Eggerthella\_sp  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Enterobacter\_s\_\_Enterobacter  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Enterococcus\_s\_\_Enterococcu



PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Peptostreptococcaceae\_nonar  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Phascolarctobacterium\_s\_\_Ph  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Prevotella\_s\_\_Prevotella\_copi  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Propionibacterium\_s\_\_Propio  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Roseburia\_s\_\_Roseburia\_hom  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Roseburia\_s\_\_Roseburia\_inuli  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcaceae\_noname\_s\_\_  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococ  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococ  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococ  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococ  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Slackia\_s\_\_Slackia\_piriformis  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Solobacterium\_s\_\_Solobacteri  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococc  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococc  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococc  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Subdoligranulum\_s\_\_Subdoli  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Veillonella\_s\_\_Veillonella\_dis  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Veillonella\_s\_\_Veillonella\_par  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Actinomyces\_s\_\_Acti  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacte  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacte  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacte  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacte  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacte  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacte  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Burkholderiales\_nona  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Citrobacter\_s\_\_Citrob  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Clostridiales\_noname  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostr  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostr  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Collinsella\_s\_\_Collins  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Collinsella\_s\_\_Collins  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Eggerthella\_s\_\_Egger  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Eggerthella\_s\_\_Egger  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Eggerthella\_s\_\_Egger  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Faecalibacterium\_s\_\_  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Holdemania\_s\_\_Hold  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Klebsiella\_s\_\_Klebsiel  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Oxalobacter\_s\_\_Oxalob  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Parasutterella\_s\_\_Par  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Slackia\_s\_\_Slackia\_pi  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Solobacterium\_s\_\_So  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Str  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Str  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Veillonella\_s\_\_Veillor  
PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Veillonella\_s\_\_Veillor





PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Butyrivibrio\_s\_Butyrivibrio\_c  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_fr  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridiales\_noname\_s\_Baci  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_a  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_b  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_c  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_c  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_h  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_le  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_p  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_s  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Collinsella\_s\_Collinsella\_tana  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Copro bacter\_s\_Copro bacter\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Dialister\_s\_Dialister\_invisus  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Eggerthella\_s\_Eggerthella\_le  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Eggerthella\_s\_Eggerthella\_sp  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Eggerthella\_s\_Eggerthella\_sp  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Enterobacter\_s\_Enterobacter  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Enterococcus\_s\_Enterococcu  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Enterococcus\_s\_Enterococcu  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Enterococcus\_s\_Enterococcu  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Gemella\_s\_Gemella\_sanguin  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Holdemania\_s\_Holdemania\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneu  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactobacillus\_s\_Lactobacillus  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_l  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Methanobrevibacter\_s\_Meth  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Nakaseomyces\_s\_Candida\_g  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Odoribacter\_s\_Odoribacter\_l  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Odoribacter\_s\_Odoribacter\_s  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Oxalobacter\_s\_Oxalobacter\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Parabacteroides\_s\_Parabacte

PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Parabacteroides\_s\_Parabacte  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Parabacteroides\_s\_Parabacte  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Parabacteroides\_s\_Parabacte  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Parabacteroides\_s\_Parabacte  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Paraprevotella\_s\_Paraprevot  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Parasutterella\_s\_Parasuttere  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Pediococcus\_s\_Pediococcus\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Pediococcus\_s\_Pediococcus\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Peptostreptococcaceae\_nonar  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Phascolarctobacterium\_s\_Ph  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Prevotella\_s\_Prevotella\_copi  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Propionibacterium\_s\_Propioi  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Roseburia\_s\_Roseburia\_inuli  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Rothia\_s\_Rothia\_mucilagino:  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Ruminococcaceae\_noname\_s\_  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococ  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococ  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Slackia\_s\_Slackia\_piriformis  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Solobacterium\_s\_Solobacteri  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Streptococcus\_s\_Streptococc  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Streptococcus\_s\_Streptococc  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_disj  
PWY\_7221\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_par  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Actinomyces\_s\_Acti  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacte  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacte  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacte  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacte  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacte  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacte  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Burkholderiales\_nona  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Citrobacter\_s\_Citrob  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Clostridiales\_noname  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Clostridium\_s\_Clostr  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Clostridium\_s\_Clostr  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Collinsella\_s\_Collinsi  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Collinsella\_s\_Collinsi  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Eggerthella\_s\_Egger  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Eggerthella\_s\_Egger  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Eggerthella\_s\_Egger  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Faecalibacterium\_s\_  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Holdemania\_s\_Hold  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Klebsiella\_s\_Klebsiel  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Oxalobacter\_s\_Oxalk  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Parasutterella\_s\_Par  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Slackia\_s\_Slackia\_pi  
PWY\_7222\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Solobacterium\_s\_So



PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Clostridium\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Clostridium\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Collinsella\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Collinsella\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Eggerthella\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Eggerthella\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Eggerthella\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Faecalibacteri  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Holdemania\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Klebsiella\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Oxalobacter\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Slackia\_s\_Sl  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Solobacterium  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Streptococcus  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Veillonella\_s  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Veillonella\_s  
PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_Coprococcus\_s\_Coprococcus\_catus  
PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_Enterococcus\_s\_Enterococcus\_faecium  
PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_Lactobacillus\_s\_Lactobacillus\_casei\_pari  
PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_Lactobacillus\_s\_Lactobacillus\_salivarius  
PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_Lactococcus\_s\_Lactococcus\_lactis  
PWY\_7234\_\_inosine\_5\_\_phosphate\_biosynthesis\_III\_g\_Streptococcus\_s\_Streptococcus\_mitis\_o  
PWY\_7237\_\_myo\_,\_chiro\_and\_scillo\_inositol\_degradation\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
PWY\_7237\_\_myo\_,\_chiro\_and\_scillo\_inositol\_degradation\_g\_Clostridium\_s\_Clostridium\_perfr  
PWY\_7237\_\_myo\_,\_chiro\_and\_scillo\_inositol\_degradation\_g\_Clostridium\_s\_Clostridium\_sp\_S  
PWY\_7237\_\_myo\_,\_chiro\_and\_scillo\_inositol\_degradation\_g\_Klebsiella\_s\_Klebsiella\_pneumor  
PWY\_7237\_\_myo\_,\_chiro\_and\_scillo\_inositol\_degradation\_g\_Lachnospiraceae\_noname\_s\_Lac  
PWY\_7237\_\_myo\_,\_chiro\_and\_scillo\_inositol\_degradation\_g\_Ruminococcus\_s\_Ruminococcus  
PWY\_7242\_\_D\_fructuronate\_degradation\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_7242\_\_D\_fructuronate\_degradation\_g\_Lactococcus\_s\_Lactococcus\_lactis  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Anae  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Citro  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Coproc  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Coproc  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Lacto  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Mega  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Oxal  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Phase  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Rothi  
PWY\_7254\_\_TCA\_cycle\_VII\_(acetate\_producers)\_g\_Citrobacter\_s\_Citrobacter\_freundii  
PWY\_7254\_\_TCA\_cycle\_VII\_(acetate\_producers)\_unclassified  
PWY\_7269\_\_NAD\_NADP\_NADH\_NADPH\_mitochondrial\_interconversion\_(yeast)\_unclassified  
PWY\_7279\_\_aerobic\_respiration\_II\_(cytochrome\_c)\_\_(yeast)\_g\_Nakaseomyces\_s\_Candida\_glabr  
PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_Bacteroid  
PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_Bacteroid  
PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_Bacteroid

PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_\_Bacteroid  
PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_\_Bacteroid  
PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_\_Bacteroid  
PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_\_Bacteroid  
PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_\_Citrobacter  
PWY\_7283\_\_wybutosine\_biosynthesis  
PWY\_7288\_\_fatty\_acid\_&beta\_oxidation\_(peroxisome,\_yeast)  
PWY\_7288\_\_fatty\_acid\_&beta\_oxidation\_(peroxisome,\_yeast)\_unclassified  
PWY\_7294\_\_xylose\_degradation\_IV  
PWY\_7315\_\_dTDP\_N\_acetylthomosamine\_biosynthesis\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWY\_7315\_\_dTDP\_N\_acetylthomosamine\_biosynthesis\_unclassified  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_7345\_\_superpathway\_of\_anaerobic\_sucrose\_degradation  
PWY\_7345\_\_superpathway\_of\_anaerobic\_sucrose\_degradation\_unclassified  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Anaerofustis\_s\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Anaerotruncus\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Bifidobacterium\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Blautia\_s\_\_Rur  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Citrobacter\_s\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Clostridium\_s\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Coprococcus\_s\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Enterococcus\_s\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Erysipelotricha  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Erysipelotricha  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Eubacterium\_s\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Fusobacterium\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Klebsiella\_s\_\_K  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Lachnospiracea  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Pediococcus\_s\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Pediococcus\_s\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Phascolarctoba  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Propionibacteri  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Roseburia\_s\_\_I  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Roseburia\_s\_\_I  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Ruminococcus\_  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Streptococcus\_  
PWY\_7371\_\_1,4\_dihydroxy\_6\_naphthoate\_biosynthesis\_II  
PWY\_7371\_\_1,4\_dihydroxy\_6\_naphthoate\_biosynthesis\_II\_g\_\_Alistipes\_s\_\_Alistipes\_finegoldii  
PWY\_7371\_\_1,4\_dihydroxy\_6\_naphthoate\_biosynthesis\_II\_g\_\_Alistipes\_s\_\_Alistipes\_sp\_HGB5  
PWY\_7371\_\_1,4\_dihydroxy\_6\_naphthoate\_biosynthesis\_II\_unclassified  
PWY\_7374\_\_1,4\_dihydroxy\_6\_naphthoate\_biosynthesis\_I  
PWY\_7374\_\_1,4\_dihydroxy\_6\_naphthoate\_biosynthesis\_I\_unclassified

PWY\_7384\_\_anaerobic\_energy\_metabolism\_(invertebrates,\_mitochondrial)

PWY\_7385\_\_1,3\_propanediol\_biosynthesis\_(engineered)

PWY\_7388\_\_octanoyl\_[acyl\_carrier\_protein]\_biosynthesis\_(mitochondria,\_yeast)\_g\_Bacteroides

PWY\_7388\_\_octanoyl\_[acyl\_carrier\_protein]\_biosynthesis\_(mitochondria,\_yeast)\_g\_Bacteroides

PWY\_7388\_\_octanoyl\_[acyl\_carrier\_protein]\_biosynthesis\_(mitochondria,\_yeast)\_g\_Citrobacter

PWY\_7388\_\_octanoyl\_[acyl\_carrier\_protein]\_biosynthesis\_(mitochondria,\_yeast)\_g\_Haemophilu

PWY\_7388\_\_octanoyl\_[acyl\_carrier\_protein]\_biosynthesis\_(mitochondria,\_yeast)\_g\_Klebsiella\_s

PWY\_7389\_\_superpathway\_of\_anaerobic\_energy\_metabolism\_(invertebrates)

PWY\_7399\_\_methylphosphonate\_degradation\_II

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Burkholderiales\_noname\_s\_Burkh

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Coprococcus\_s\_Coprococcus\_catus

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Eubacterium\_s\_Eubacterium\_sirae

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Lactococcus\_s\_Lactococcus\_lactis

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Oxalobacter\_s\_Oxalobacter\_formiq

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Parasutterella\_s\_Parasutterella\_ex

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Ruminococcus\_s\_Ruminococcus\_cl

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Veillonella\_s\_Veillonella\_dispar

PWY\_7400\_\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Veillonella\_s\_Veillonella\_parvula

PWY\_7409\_\_phospholipid\_remodeling\_(phosphatidylethanolamine,\_yeast)\_unclassified

PWY\_7431\_\_aromatic\_biogenic\_amine\_degradation\_(bacteria)

PWY\_7446\_\_sulfoglycolysis\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_7446\_\_sulfoglycolysis\_unclassified

PWY\_7456\_\_mannan\_degradation\_g\_Bacteroides\_s\_Bacteroides\_ovatus

PWY\_7456\_\_mannan\_degradation\_g\_Coprococcus\_s\_Coprococcus\_eutactus

PWY\_7456\_\_mannan\_degradation\_g\_Coprococcus\_s\_Coprococcus\_sp\_ART55\_1

PWY\_7456\_\_mannan\_degradation\_g\_Eubacterium\_s\_Eubacterium\_siraeum

PWY\_7456\_\_mannan\_degradation\_unclassified

PWY\_7527\_\_L\_methionine\_salvage\_cycle\_III

PWY\_7527\_\_L\_methionine\_salvage\_cycle\_III\_unclassified

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_Bact

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_Bact

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_Bact

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_Bact

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_Bact

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_Bact

PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_g\_Citro

PWY\_7560\_\_methylerythritol\_phosphate\_pathway\_II\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY\_7560\_\_methylerythritol\_phosphate\_pathway\_II\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY\_7560\_\_methylerythritol\_phosphate\_pathway\_II\_g\_Phascolarctobacterium\_s\_Phascolarcto

PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_eggerthii

PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_faecis

PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_finegoldii

PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_ovatus

PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_salyersiae

PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30

PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6

PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22

PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_stercoris  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_thetaiotaomicr  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Citrobacter\_s\_Citrobacter\_freundii  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 PWY\_7663\_gondoate\_biosynthesis\_(anaerobic)\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus  
 PWY\_7664\_oleate\_biosynthesis\_IV\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
 PWY\_7664\_oleate\_biosynthesis\_IV\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens  
 PWY\_7664\_oleate\_biosynthesis\_IV\_(anaerobic)\_g\_Citrobacter\_s\_Citrobacter\_freundii  
 PWY\_7664\_oleate\_biosynthesis\_IV\_(anaerobic)\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
 PWY\_7664\_oleate\_biosynthesis\_IV\_(anaerobic)\_g\_Haemophilus\_s\_Haemophilus\_parainfluenz  
 PWY\_7664\_oleate\_biosynthesis\_IV\_(anaerobic)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
 PWY\_922\_mevalonate\_pathway\_I\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 PWY0\_1061\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii  
 PWY0\_1061\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_Enterococcus\_s\_Enterococcus\_durar  
 PWY0\_1061\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_Enterococcus\_s\_Enterococcus\_faeci  
 PWY0\_1061\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
 PWY0\_1061\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus\_miti  
 PWY0\_1061\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus\_san  
 PWY0\_1241\_ADP\_L\_glycero\_&beta\_D\_manno\_heptose\_biosynthesis\_g\_Citrobacter\_s\_Citrob  
 PWY0\_1241\_ADP\_L\_glycero\_&beta\_D\_manno\_heptose\_biosynthesis\_g\_Enterobacter\_s\_En  
 PWY0\_1277\_3\_phenylpropanoate\_and\_3\_(3\_hydroxyphenyl)propanoate\_degradation\_g\_Citrob  
 PWY0\_1277\_3\_phenylpropanoate\_and\_3\_(3\_hydroxyphenyl)propanoate\_degradation\_g\_Klebsi  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Anaerotruncus\_s\_Anaerotruncus\_colihon  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Blautia\_s\_Ruminococcus\_gnavus  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Blautia\_s\_Ruminococcus\_obeum  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Butyrvibrio\_s\_Butyrvibrio\_crossotus  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Catenibacterium\_s\_Catenibacterium\_mit  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Citrobacter\_s\_Citrobacter\_freundii  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridiales\_noname\_s\_Bacteroides\_pec  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridiales\_noname\_s\_Clostridiales\_ba  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridium\_s\_Clostridium\_asparagiforme  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridium\_s\_Clostridium\_bolteae  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridium\_s\_Clostridium\_citroniae  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridium\_s\_Clostridium\_clostridioform  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridium\_s\_Clostridium\_hathewayi  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridium\_s\_Clostridium\_leptum  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Clostridium\_s\_Clostridium\_perfringens  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Collinsella\_s\_Collinsella\_intestinalis  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Collinsella\_s\_Collinsella\_tanakaei  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Coprococcus\_s\_Coprococcus\_catus  
 PWY0\_1296\_purine\_ribonucleosides\_degradation\_g\_Dorea\_s\_Dorea\_formicigenerans

PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Enterococcus\_s\_Enterococcus\_durans  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Erysipelotrichaceae\_noname\_s\_Clostridiu  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Erysipelotrichaceae\_noname\_s\_Erysipelo  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Erysipelotrichaceae\_noname\_s\_Erysipelo  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Erysipelotrichaceae\_noname\_s\_Eubacteri  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Erysipelotrichaceae\_noname\_s\_Eubacteri  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Eubacterium\_s\_Eubacterium\_eligens  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Eubacterium\_s\_Eubacterium\_ramulus  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Eubacterium\_s\_Eubacterium\_sp\_3\_1\_31  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Eubacterium\_s\_Eubacterium\_ventriosum  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Holdemania\_s\_Holdemania\_filiformis  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Lachnospiraceae\_noname\_s\_Lachnospira  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Lachnospiraceae\_noname\_s\_Lachnospira  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Lachnospiraceae\_noname\_s\_Lachnospira  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Lachnospiraceae\_noname\_s\_Lachnospira  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Lachnospiraceae\_noname\_s\_Lachnospira  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Lachnospiraceae\_noname\_s\_Lachnospira  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Lactobacillus\_s\_Lactobacillus\_casei\_parac  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Pediococcus\_s\_Pediococcus\_acidilactici  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Peptostreptococcaceae\_noname\_s\_Clostr  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Roseburia\_s\_Roseburia\_hominis  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Roseburia\_s\_Roseburia\_inulinivorans  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Streptococcus\_s\_Streptococcus\_australis  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Streptococcus\_s\_Streptococcus\_mitis\_oro  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Streptococcus\_s\_Streptococcus\_sanguinis  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Subdoligranulum\_s\_Subdoligranulum\_sp.  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Anaerotruncus\_s\_  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Blautia\_s\_Rumin  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Citrobacter\_s\_Ci  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Clostridiales\_nona  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Clostridium\_s\_Cl  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Clostridium\_s\_Cl  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Enterobacter\_s\_|  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Holdemania\_s\_H  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Klebsiella\_s\_Klek  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Lachnospiraceae\_  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Lactobacillus\_s\_|  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Streptococcus\_s\_  
 PWY0\_1298\_\_superpathway\_of\_pyrimidine\_deoxyribonucleosides\_degradation\_g\_Anaerostipes\_  
 PWY0\_1298\_\_superpathway\_of\_pyrimidine\_deoxyribonucleosides\_degradation\_g\_Clostridium\_s  
 PWY0\_1298\_\_superpathway\_of\_pyrimidine\_deoxyribonucleosides\_degradation\_g\_Lachnospirace  
 PWY0\_1298\_\_superpathway\_of\_pyrimidine\_deoxyribonucleosides\_degradation\_g\_Streptococcus  
 PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Alistipes\_s\_Alistipes\_finegoldii  
 PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Alistipes\_s\_Alistipes\_indistinctus  
 PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Alistipes\_s\_Alistipes\_sp\_HGB5



PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Anaerostipes\_s\_\_Anaerostipes\_hadrus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_cellulosilyticus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_clarus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_coprocola  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_eggerthii  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_faecis  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_finegoldii  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_intestinalis  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_plebeius  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_salyersiae  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_30  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_6  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_1\_22  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_2\_4  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_19  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_23  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_D20  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_stercoris  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_thetaiotaomicr  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_uniformis  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylanisolvens  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Barnesiella\_s\_\_Barnesiella\_intestinihominis  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Blautia\_s\_\_Blautia\_hydrogenotrophica  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Blautia\_s\_\_Ruminococcus\_gnavus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Blautia\_s\_\_Ruminococcus\_obeum  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Butyrivibrio\_s\_\_Butyrivibrio\_crossotus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Clostridiales\_noname\_s\_\_Clostridiales\_bact  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_asparagiforme  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_bolteae  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_clostridioforme  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_hathewayi  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_leptum  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_L2\_50  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Clostridium\_s\_\_Clostridium\_sp\_SS2\_1  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Coprobacter\_s\_\_Coprobacter\_fastidiosus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Coprococcus\_s\_\_Coprococcus\_eutactus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Dialister\_s\_\_Dialister\_invisus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Dorea\_s\_\_Dorea\_formicigenerans  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Enterobacter\_s\_\_Enterobacter\_cloacae  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Erysipelotrichaceae\_noname\_s\_\_Clostridium  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Eubacterium\_s\_\_Eubacterium\_eligens  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Eubacterium\_s\_\_Eubacterium\_hallii  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Eubacterium\_s\_\_Eubacterium\_ramulus  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Eubacterium\_s\_\_Eubacterium\_siraeum

PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Eubacterium\_s\_Eubacterium\_ventriosum  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Gordonibacter\_s\_Gordonibacter\_pamelaea  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Lachnospiraceae\_noname\_s\_Lachnospirace  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Oxalobacter\_s\_Oxalobacter\_formigenes  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Parabacteroides\_s\_Parabacteroides\_distas  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Parabacteroides\_s\_Parabacteroides\_johnsc  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Parabacteroides\_s\_Parabacteroides\_merda  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Parabacteroides\_s\_Parabacteroides\_sp\_D1  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Paraprevotella\_s\_Paraprevotella\_clara  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Peptostreptococcaceae\_noname\_s\_Clostric  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Propionibacterium\_s\_Propionibacterium\_fr  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Roseburia\_s\_Roseburia\_hominis  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Roseburia\_s\_Roseburia\_inulinivorans  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Ruminococcus\_s\_Ruminococcus\_champane  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Ruminococcus\_s\_Ruminococcus\_sp  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Streptococcus\_s\_Streptococcus\_mitis\_orali  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Subdoligranulum\_s\_Subdoligranulum\_sp\_4  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Veillonella\_s\_Veillonella\_dispar  
PWYO\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Veillonella\_s\_Veillonella\_parvula  
PWYO\_1338\_\_polymyxin\_resistance\_unclassified  
PWYO\_1415\_\_superpathway\_of\_heme\_biosynthesis\_from\_uroporphyrinogen\_III\_unclassified  
PWYO\_1479\_\_tRNA\_processing\_g\_Burkholderiales\_noname\_s\_Burkholderiales\_bacterium\_1\_1  
PWYO\_1479\_\_tRNA\_processing\_g\_Parasutterella\_s\_Parasutterella\_excrementihominis  
PWYO\_1479\_\_tRNA\_processing\_unclassified  
PWYO\_1533\_\_methylphosphonate\_degradation\_I\_unclassified  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Akkermansia\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Bacteroides\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Citrobacter\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Eggerthella\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Eggerthella\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Eggerthella\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Enterobacter\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Klebsiella\_s\_k  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Odoribacter\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Oxalobacter\_s  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Propionibacter  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Ruminococcus  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Streptococcus  
PWYO\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Streptococcus

PWY0\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_Veillonella\_s

PWY0\_162\_\_superpathway\_of\_pyrimidine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Citrobacter

PWY0\_162\_\_superpathway\_of\_pyrimidine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Klebsiella\_s

PWY0\_162\_\_superpathway\_of\_pyrimidine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Oxalobacter

PWY0\_162\_\_superpathway\_of\_pyrimidine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Propionibacter

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

PWY0\_321\_\_phenylacetate\_degradation\_I\_(aerobic)\_g\_Escherichia\_s\_Escherichia\_coli

PWY0\_321\_\_phenylacetate\_degradation\_I\_(aerobic)\_unclassified

PWY0\_42\_\_2\_methylcitrate\_cycle\_I

PWY0\_42\_\_2\_methylcitrate\_cycle\_I\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY0\_42\_\_2\_methylcitrate\_cycle\_I\_unclassified

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroides

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Citrobacter

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Parabacteroides

PWY0\_862\_\_(5Z)\_dodec\_5\_enoate\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4

PWY0\_862\_\_(5Z)\_dodec\_5\_enoate\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvans

PWY0\_862\_\_(5Z)\_dodec\_5\_enoate\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY0\_862\_\_(5Z)\_dodec\_5\_enoate\_biosynthesis\_g\_Enterobacter\_s\_Enterobacter\_cloacae

PWY0\_862\_\_(5Z)\_dodec\_5\_enoate\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY1F\_823\_\_leucopelargonidin\_and\_leucocyanidin\_biosynthesis

PWY1F\_823\_\_leucopelargonidin\_and\_leucocyanidin\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus

PWY3DJ\_35471\_\_L\_ascorbate\_biosynthesis\_IV

PWY3O\_19\_\_ubiquinol\_6\_biosynthesis\_from\_4\_hydroxybenzoate\_(eukaryotic)

PWY4FS\_7\_\_phosphatidylglycerol\_biosynthesis\_I\_(plastidic)\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY4FS\_7\_\_phosphatidylglycerol\_biosynthesis\_I\_(plastidic)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY4FS\_8\_\_phosphatidylglycerol\_biosynthesis\_II\_(non\_plastidic)\_g\_Citrobacter\_s\_Citrobacter\_freundii

PWY4FS\_8\_\_phosphatidylglycerol\_biosynthesis\_II\_(non\_plastidic)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae

PWY66\_367\_\_ketogenesis

PWY66\_375\_\_leukotriene\_biosynthesis

PWY66\_375\_\_leukotriene\_biosynthesis\_g\_Nakaseomyces\_s\_Candida\_glabrata

PWY66\_375\_\_leukotriene\_biosynthesis\_unclassified

PWY66\_391\_fatty\_acid\_&beta\_oxidation\_VI\_(peroxisome)

PWY66\_391\_fatty\_acid\_&beta\_oxidation\_VI\_(peroxisome)\_unclassified

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Bacteroides\_s\_Bacteroides\_ovatus

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_30

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_1\_22

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Lactococcus\_s\_Lactococcus\_lactis

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Pediococcus\_s\_Pediococcus\_acidilactici

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Pediococcus\_s\_Pediococcus\_lolii

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Streptococcus\_s\_Streptococcus\_australis

PWY66\_400\_glycolysis\_VI\_(metazoan)\_g\_Streptococcus\_s\_Streptococcus\_mitis\_oralis\_pneum

PWY66\_409\_superpathway\_of\_purine\_nucleotide\_salvage\_g\_Citrobacter\_s\_Citrobacter\_freun

PWY66\_409\_superpathway\_of\_purine\_nucleotide\_salvage\_g\_Streptococcus\_s\_Streptococcus\_

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Anaerostipes\_s\_Anaerostipes\_h

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Blautia\_s\_Ruminococcus\_obeun

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Citrobacter\_s\_Citrobacter\_freur

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Clostridium\_s\_Clostridium\_sp\_S

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Coprococcus\_s\_Coprococcus\_ca

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Enterococcus\_s\_Enterococcus\_d

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Enterococcus\_s\_Enterococcus\_fi

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Erysipelotrichaceae\_noname\_s\_

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Eubacterium\_s\_Eubacterium\_si

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Fusobacterium\_s\_Fusobacteriur

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Lachnospiraceae\_noname\_s\_La

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Lachnospiraceae\_noname\_s\_La

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Lactobacillus\_s\_Lactobacillus\_ca

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Lactobacillus\_s\_Lactobacillus\_rh

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Lactococcus\_s\_Lactococcus\_lact

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Propionibacterium\_s\_Propionib:

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Ruminococcus\_s\_Ruminococcus

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Streptococcus\_s\_Streptococcus\_

PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Streptococcus\_s\_Streptococcus\_

PYRIDNUCSAL\_PWY\_NAD\_salvage\_pathway\_I\_g\_Citrobacter\_s\_Citrobacter\_freundii

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Alistipes\_s\_Alistipes\_finegoldii

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Alistipes\_s\_Alistipes\_senegalen

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Alistipes\_s\_Alistipes\_shahii

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Anaerostipes\_s\_Anaerostipes\_h

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Citrobacter\_s\_Citrobacter\_freur

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Clostridium\_s\_Clostridium\_sp\_S

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Coprococcus\_s\_Coprococcus\_ca

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Coprococcus\_s\_Coprococcus\_eu

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Coprococcus\_s\_Coprococcus\_sp

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Eubacterium\_s\_Eubacterium\_si

PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Lachnospiraceae\_noname\_s\_La

PYRIDNUCSYN\_PWY\_\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_\_Odoribacter\_s\_\_Odoribacter\_spl  
 PYRIDNUCSYN\_PWY\_\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_\_Oxalobacter\_s\_\_Oxalobacter\_for  
 PYRIDNUCSYN\_PWY\_\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_\_Propionibacterium\_s\_\_Propionib  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_egg  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_fae  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_frag  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_ova  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_ste  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_the  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_uni  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_xyl  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Citrobacter\_s\_\_Citrobacter\_freun  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_\_Parabacteroides\_s\_\_Parabactero  
 REDCITCYC\_\_TCA\_cycle\_VIII\_(helicobacter)\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
 REDCITCYC\_\_TCA\_cycle\_VIII\_(helicobacter)\_unclassified  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_faecis  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_finegoldii  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_ovatus  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_30  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_1\_1\_6  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_1\_22  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_2\_2\_4  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_1\_23  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_thetaiotaomicron  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_xylanisolvans  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Citrobacter\_s\_\_Citrobacter\_freundii  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Clostridium\_s\_\_Clostridium\_hathewayi  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Enterococcus\_s\_\_Enterococcus\_faecalis  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_ventriosum  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Holdemania\_s\_\_Holdemania\_filiformis  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Klebsiella\_s\_\_Klebsiella\_pneumoniae  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Lachnospiraceae\_noname\_s\_\_Lachnospiraceae\_  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Pediococcus\_s\_\_Pediococcus\_acidilactici  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Pediococcus\_s\_\_Pediococcus\_lolii  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
 RIBOSYN2\_PWY\_\_flavin\_biosynthesis\_I\_(bacteria\_and\_plants)\_g\_\_Propionibacterium\_s\_\_Propioni  
 RUMP\_PWY\_\_formaldehyde\_oxidation\_I  
 RUMP\_PWY\_\_formaldehyde\_oxidation\_I\_unclassified  
 SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_\_Anaerostipes\_s\_\_  
 SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_\_Citrobacter\_s\_\_C

SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Clostridium\_s\_C  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Coprococcus\_s\_  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Dorea\_s\_Dorea\_  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Enterobacter\_s\_  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Eubacterium\_s\_  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Gordonibacter\_s\_  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Klebsiella\_s\_Kle  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Lachnospiraceae\_  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Phascalactobact  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Propionibacteriur  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Ruminococcus\_s\_  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Streptococcus\_s\_  
SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)\_g\_Akkermansia\_s\_Akkermansia\_muciniph  
SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)\_g\_Citrobacter\_s\_Citrobacter\_freundii  
SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)\_g\_Klebsiella\_s\_Klebsiella\_pneumoniae  
SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)\_g\_Odoribacter\_s\_Odoribacter\_laneus  
SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)\_g\_Odoribacter\_s\_Odoribacter\_splanchnic  
SULFATE\_CYS\_PWY\_\_superpathway\_of\_sulfate\_assimilation\_and\_cysteine\_biosynthesis\_g\_Citrob  
SULFATE\_CYS\_PWY\_\_superpathway\_of\_sulfate\_assimilation\_and\_cysteine\_biosynthesis\_g\_Enter  
SULFATE\_CYS\_PWY\_\_superpathway\_of\_sulfate\_assimilation\_and\_cysteine\_biosynthesis\_g\_Klebs  
TCA\_GLYOX\_BYPASS\_\_superpathway\_of\_glyoxylate\_bypass\_and\_TCA\_g\_Citrobacter\_s\_Citrobac  
TCA\_GLYOX\_BYPASS\_\_superpathway\_of\_glyoxylate\_bypass\_and\_TCA\_g\_Enterobacter\_s\_Enteroc  
TCA\_TCA\_cycle\_I\_(prokaryotic)\_g\_Citrobacter\_s\_Citrobacter\_freundii  
TCA\_TCA\_cycle\_I\_(prokaryotic)\_g\_Enterobacter\_s\_Enterobacter\_cloacae  
TEICHOICACID\_PWY\_\_teichoic\_acid\_(poly\_glycerol)\_biosynthesis\_unclassified  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Ana  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Ana  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Ana  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Bac  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Bac  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Bac  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Bac  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Bac  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Bac  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Bac  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Bla  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Citr  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Clo:  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Klel  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Lacl  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Pha  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Anaerostipes\_s\_Anaerostipes\_  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Anaerotruncus\_s\_Anaerotrunc  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacte  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacte  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacte

THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freu  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_sp\_  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Collinsella\_s\_Collinsella\_intest  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_c  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_e  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_s  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Enterobacter\_s\_Enterobacter\_i  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Erysipelotrichaceae\_noname\_s\_  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Holdemania\_s\_Holdemania\_fil  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Klebsiella\_s\_Klebsiella\_pneum  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Lachnospiraceae\_noname\_s\_La  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_lac  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Megasphaera\_s\_Megasphaera  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Oxalobacter\_s\_Oxalobacter\_fo  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Phascolarctobacterium\_s\_Phas  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Propionibacterium\_s\_Propionil  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Rothia\_s\_Rothia\_mucilaginos  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_dispa  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_parvu  
TRNA\_CHARGING\_PWY\_\_tRNA\_charging\_g\_Fusobacterium\_s\_Fusobacterium\_nucleatum  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvens  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_obeum  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_sp\_SS2\_1  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_eutactus  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Coprococcus\_s\_Coprococcus\_sp\_ART55\_1  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_lactis  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Odoribacter\_s\_Odoribacter\_splanchnicus  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Oxalobacter\_s\_Oxalobacter\_formigenes  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Phascolarctobacterium\_s\_Phascolarctobacterium\_  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_champanellensis  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_sp  
UBISYN\_PWY\_\_superpathway\_of\_ubiquinol\_8\_biosynthesis\_(prokaryotic)\_g\_Klebsiella\_s\_Klebsi  
UBISYN\_PWY\_\_superpathway\_of\_ubiquinol\_8\_biosynthesis\_(prokaryotic)\_unclassified  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Bifidobacterium\_s\_Bifido  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Bifidobacterium\_s\_Bifido  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Bifidobacterium\_s\_Bifido  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Bifidobacterium\_s\_Bifido  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Clostridium\_s\_Clostridiu  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Coprococcus\_s\_Coprococ  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Enterobacter\_s\_Enteroba  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Enterococcus\_s\_Enterocc  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Enterococcus\_s\_Enterocc

UDPNAGSYN\_PWY\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_l\_g\_Fusobacterium\_s\_Fusoba  
 UDPNAGSYN\_PWY\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_l\_g\_Klebsiella\_s\_Klebsiella\_p  
 UDPNAGSYN\_PWY\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_l\_g\_Lactobacillus\_s\_Lactobaci  
 UDPNAGSYN\_PWY\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_l\_g\_Lactococcus\_s\_Lactococci  
 UDPNAGSYN\_PWY\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_l\_g\_Ruminococcus\_s\_Ruminococ  
 UDPNAGSYN\_PWY\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_l\_g\_Streptococcus\_s\_Streptococ  
 UDPNAGSYN\_PWY\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_l\_g\_Streptococcus\_s\_Streptococ  
 URSIN\_PWY\_ureide\_biosynthesis  
 URSIN\_PWY\_ureide\_biosynthesis\_unclassified  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Akkermansia\_s\_Akkermansia\_muciniphila  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Alistipes\_s\_Alistipes\_indistinctus  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Alistipes\_s\_Alistipes\_senegalensis  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Anaerofustis\_s\_Anaerofustis\_stercorihominis  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Anaerostipes\_s\_Anaerostipes\_hadrus  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_cellulosilyticus  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_clarus  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_finegoldii  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_intestinalis  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_massiliensis  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_plebeius  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_salysiae  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_1\_1\_6  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_2\_2\_4  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_19  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_1\_23  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_stercoris  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_xylanisolvans  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Barnesiella\_s\_Barnesiella\_intestinihominis  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_angulatum  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_catenulatum  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_pseudocatenulatu  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Bilophila\_s\_Bilophila\_wadsworthia  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Blautia\_s\_Blautia\_hydrogenotrophica  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Blautia\_s\_Blautia\_sp\_KLE\_1732  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_obeum  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Burkholderiales\_noname\_s\_Burkholderiales\_bacterium  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Butyrvibrio\_s\_Butyrvibrio\_crossotus  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Catenibacterium\_s\_Catenibacterium\_mitsuokai  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Citrobacter\_s\_Citrobacter\_freundii  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Clostridiales\_noname\_s\_Bacteroides\_pectinophilus  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Clostridiales\_noname\_s\_Clostridiales\_bacterium\_1\_7  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_asparagiforme  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_bolteae  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_citroniae  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_clostridioforme  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_hathewayi  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Clostridium\_s\_Clostridium\_leptum



VALSYN_PWY__L_valine_biosynthesis_g_Clostridium_s_Clostridium_sp_L2_50
VALSYN_PWY__L_valine_biosynthesis_g_Clostridium_s_Clostridium_sp_SS2_1
VALSYN_PWY__L_valine_biosynthesis_g_Collinsella_s_Collinsella_tanakaei
VALSYN_PWY__L_valine_biosynthesis_g_Copro bacter_s_Copro bacter_fastidiosus
VALSYN_PWY__L_valine_biosynthesis_g_Coprococcus_s_Coprococcus_catus
VALSYN_PWY__L_valine_biosynthesis_g_Coprococcus_s_Coprococcus_eutactus
VALSYN_PWY__L_valine_biosynthesis_g_Coprococcus_s_Coprococcus_sp_ART55_1
VALSYN_PWY__L_valine_biosynthesis_g_Dorea_s_Dorea_formicigenerans
VALSYN_PWY__L_valine_biosynthesis_g_Eggerthella_s_Eggerthella_sp_1_3_56FAA
VALSYN_PWY__L_valine_biosynthesis_g_Eggerthella_s_Eggerthella_sp_HGA1
VALSYN_PWY__L_valine_biosynthesis_g_Enterobacter_s_Enterobacter_cloacae
VALSYN_PWY__L_valine_biosynthesis_g_Enterorhabdus_s_Enterorhabdus_caecimuris
VALSYN_PWY__L_valine_biosynthesis_g_Erysipelotrichaceae_noname_s_Clostridium_spiroform
VALSYN_PWY__L_valine_biosynthesis_g_Erysipelotrichaceae_noname_s_Erysipelotrichaceae_ba
VALSYN_PWY__L_valine_biosynthesis_g_Erysipelotrichaceae_noname_s_Erysipelotrichaceae_ba
VALSYN_PWY__L_valine_biosynthesis_g_Erysipelotrichaceae_noname_s_Eubacterium_cylindroi
VALSYN_PWY__L_valine_biosynthesis_g_Eubacterium_s_Eubacterium_eligens
VALSYN_PWY__L_valine_biosynthesis_g_Eubacterium_s_Eubacterium_hallii
VALSYN_PWY__L_valine_biosynthesis_g_Eubacterium_s_Eubacterium_ramulus
VALSYN_PWY__L_valine_biosynthesis_g_Eubacterium_s_Eubacterium_siraeum
VALSYN_PWY__L_valine_biosynthesis_g_Eubacterium_s_Eubacterium_sp_3_1_31
VALSYN_PWY__L_valine_biosynthesis_g_Fusobacterium_s_Fusobacterium_nucleatum
VALSYN_PWY__L_valine_biosynthesis_g_Klebsiella_s_Klebsiella_pneumoniae
VALSYN_PWY__L_valine_biosynthesis_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteriu
VALSYN_PWY__L_valine_biosynthesis_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteriu
VALSYN_PWY__L_valine_biosynthesis_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteriu
VALSYN_PWY__L_valine_biosynthesis_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteriu
VALSYN_PWY__L_valine_biosynthesis_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteriu
VALSYN_PWY__L_valine_biosynthesis_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteriu
VALSYN_PWY__L_valine_biosynthesis_g_Lachnospiraceae_noname_s_Lachnospiraceae_bacteriu
VALSYN_PWY__L_valine_biosynthesis_g_Odoribacter_s_Odoribacter_laneus
VALSYN_PWY__L_valine_biosynthesis_g_Odoribacter_s_Odoribacter_splanchnicus
VALSYN_PWY__L_valine_biosynthesis_g_Oxalobacter_s_Oxalobacter_formigenes
VALSYN_PWY__L_valine_biosynthesis_g_Parabacteroides_s_Parabacteroides_distasonis
VALSYN_PWY__L_valine_biosynthesis_g_Parabacteroides_s_Parabacteroides_goldsteinii
VALSYN_PWY__L_valine_biosynthesis_g_Parabacteroides_s_Parabacteroides_johnsonii
VALSYN_PWY__L_valine_biosynthesis_g_Parabacteroides_s_Parabacteroides_merdae
VALSYN_PWY__L_valine_biosynthesis_g_Parabacteroides_s_Parabacteroides_sp_20_3
VALSYN_PWY__L_valine_biosynthesis_g_Parabacteroides_s_Parabacteroides_sp_D13
VALSYN_PWY__L_valine_biosynthesis_g_Paraprevotella_s_Paraprevotella_clara
VALSYN_PWY__L_valine_biosynthesis_g_Paraprevotella_s_Paraprevotella_xylaniphila
VALSYN_PWY__L_valine_biosynthesis_g_Parasutterella_s_Parasutterella_excrementihominis
VALSYN_PWY__L_valine_biosynthesis_g_Peptostreptococcaceae_noname_s_Clostridium_bartle
VALSYN_PWY__L_valine_biosynthesis_g_Phascolarctobacterium_s_Phascolarctobacterium_succ
VALSYN_PWY__L_valine_biosynthesis_g_Propionibacterium_s_Propionibacterium_freudenreich
VALSYN_PWY__L_valine_biosynthesis_g_Roseburia_s_Roseburia_hominis
VALSYN_PWY__L_valine_biosynthesis_g_Roseburia_s_Roseburia_inulinivorans
VALSYN_PWY__L_valine_biosynthesis_g_Ruminococcaceae_noname_s_Ruminococcaceae_bacte

VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_sp  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_sp\_JC304  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus\_australis  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus\_mitis\_oralis\_pneumon  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus\_sanguinis  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Subdoligranulum\_s\_Subdoligranulum\_sp\_4\_3\_54A2FA  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_dispar  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Veillonella\_s\_Veillonella\_parvula  
 PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Haemophilus\_s\_Haemophilus\_parainfluenzae  
 PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_cont  
 PWY\_6703\_\_preQ0\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I  
 PWY0\_1061\_\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_Haemophilus\_s\_Haemophilus\_pari  
 PWY\_1042\_\_glycolysis\_IV\_(plant\_cytosol)\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 PWY0\_162\_\_superpathway\_of\_pyrimidine\_ribonucleotides\_de\_novo\_biosynthesis  
 PWY66\_400\_\_glycolysis\_VI\_(metazoan)\_unclassified  
 PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I  
 PWY\_6396\_\_superpathway\_of\_2,3\_butanediol\_biosynthesis  
 PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_unclassified  
 1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_cacca  
 FAO\_PWY\_\_fatty\_acid\_&beta\_oxidation\_I\_unclassified  
 DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_Veillonella\_s\_Veillonella\_atypica  
 PWY\_7013\_\_L\_1,2\_propanediol\_degradation\_g\_Escherichia\_s\_Escherichia\_coli  
 THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis  
 PWY\_5136\_\_fatty\_acid\_&beta\_oxidation\_II\_(peroxisome)\_unclassified  
 P122\_PWY\_\_heterolactic\_fermentation\_unclassified  
 PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Lactococcus\_s\_Lactococcus\_l  
 PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Lactococcus\_s  
 PWY\_6545\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_III  
 ILEUSYN\_PWY\_\_L\_ileucine\_biosynthesis\_I\_(from\_threonine)\_g\_Lactococcus\_s\_Lactococcus\_la  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage\_g\_Bacteroid  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobacterium\_longum  
 PWY\_7539\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_III\_(Chlamydia)\_unclassif  
 PWY0\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)  
 PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 PWY\_3841\_\_folate\_transformations\_II\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_unclassified  
 PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Haen  
 FUC\_RHAMCAT\_PWY\_\_superpathway\_of\_fucose\_and\_rhamnose\_degradation\_unclassified  
 PYRIDOXSYN\_PWY\_\_pyridoxal\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_cac  
 PWY\_7187\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II  
 PWY490\_3\_\_nitrate\_reduction\_VI\_(assimilatory)\_unclassified  
 HEMESYN2\_PWY\_\_heme\_biosynthesis\_II\_(anaerobic)\_g\_Haemophilus\_s\_Haemophilus\_pariinfl  
 PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_Haemophilus\_s\_Haemophilus  
 SALVADEHYPOX\_PWY\_\_adenosine\_nucleotides\_degradation\_II  
 ARG+POLYAMINE\_SYN\_\_superpathway\_of\_arginine\_and\_polyamine\_biosynthesis

PWY\_6113\_\_superpathway\_of\_mycolate\_biosynthesis\_unclassified  
 UNINTEGRATED\_g\_Bacteroides\_s\_Bacteroides\_caccae  
 PWY\_5989\_\_stearate\_biosynthesis\_II\_(bacteria\_and\_plants)\_unclassified  
 PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Lactococcus\_s\_Lac  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_I  
 PWY\_6737\_\_starch\_degradation\_V\_g\_Haemophilus\_s\_Haemophilus\_parainfluenzae  
 PWY\_6284\_\_superpathway\_of\_unsaturated\_fatty\_acids\_biosynthesis\_(E\_coli)\_unclassified  
 THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)  
 PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Haemophilus\_s\_Haemophilu  
 GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N  
 PWY\_6897\_\_thiamin\_salvage\_II  
 PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)  
 PWY0\_1261\_\_anhydromuropeptides\_recycling\_unclassified  
 PWY\_5367\_\_petroselinate\_biosynthesis\_unclassified  
 PWY\_7211\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis  
 PWY0\_1061\_\_superpathway\_of\_L\_alanine\_biosynthesis\_unclassified  
 PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Actinomyces\_s\_Actinomyces\_  
 THISYN\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_I\_unclassified  
 GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N  
 PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Haemophilus  
 UNINTEGRATED\_g\_Actinomyces\_s\_Actinomyces\_graevenitzii  
 PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Actinomyces\_s\_Actinomyces\_  
 PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Actinomyces\_  
 HISTSYN\_PWY\_\_L\_histidine\_biosynthesis  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)  
 PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_Haemophilus\_  
 POLYISOPRENSYN\_PWY\_\_polyisoprenoid\_biosynthesis\_(E\_coli)\_unclassified  
 PENTOSE\_P\_PWY\_\_pentose\_phosphate\_pathway\_unclassified  
 PWY\_6901\_\_superpathway\_of\_glucose\_and\_xylose\_degradation\_unclassified  
 PWY\_3001\_\_superpathway\_of\_L\_isoleucine\_biosynthesis\_I  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Haemophilus\_s\_Haemophilus\_par  
 GLUTORN\_PWY\_\_L\_ornithine\_biosynthesis\_g\_Lactococcus\_s\_Lactococcus\_lactis  
 PWY\_6936\_\_seleno\_amino\_acid\_biosynthesis\_g\_Haemophilus\_s\_Haemophilus\_parainfluenzae  
 PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Haemophilus\_s\_Hae  
 PWY\_7222\_\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Haemophilus\_s\_Hae  
 PWY\_5840\_\_superpathway\_of\_menaquinol\_7\_biosynthesis\_unclassified  
 PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_Haemophilus\_s\_Haemophilus\_parain  
 PWY\_6519\_\_8\_amino\_7\_oxononanoate\_biosynthesis\_I\_unclassified  
 PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III  
 PWY\_6165\_\_chorismate\_biosynthesis\_II\_(archaea)  
 PWY\_4981\_\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_unclassified  
 PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_g\_Actinomyces\_s\_Actinomyces\_graevenit  
 METHGLYUT\_PWY\_\_superpathway\_of\_methylglyoxal\_degradation\_unclassified  
 PWY\_6859\_\_all\_trans\_farnesol\_biosynthesis\_unclassified  
 COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I  
 GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N  
 PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g

PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)  
PWY\_5103\_\_L\_isoleucine\_biosynthesis\_III  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)  
FOLSYN\_PWY\_\_superpathway\_of\_tetrahydrofolate\_biosynthesis\_and\_salvage\_unclassified  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Actinomyces\_s\_\_Actinomyces\_graevenitzii  
PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
P4\_PWY\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_I  
BIOTIN\_BIOSYNTHESIS\_PWY\_\_biotin\_biosynthesis\_I\_unclassified  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis  
ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_I\_unclassified  
P185\_PWY\_\_formaldehyde\_assimilation\_III\_(dihydroxyacetone\_cycle)\_unclassified  
PWY\_6612\_\_superpathway\_of\_tetrahydrofolate\_biosynthesis\_unclassified  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_unclassified  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Actinomyces\_s\_\_Actinomyces\_graevenitzii  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY\_1042\_\_glycolysis\_IV\_(plant\_cytosol)\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
RIBOSYN2\_PWY\_\_flavin\_biosynthesis\_I\_(bacteria\_and\_plants)\_unclassified  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
P124\_PWY\_\_Bifidobacterium\_shunt  
PWY\_7391\_\_isoprene\_biosynthesis\_II\_(engineered)\_unclassified  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY\_1269\_\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinate\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
P163\_PWY\_\_L\_lysine\_fermentation\_to\_acetate\_and\_butanoate\_unclassified  
FUCCAT\_PWY\_\_fucose\_degradation\_unclassified  
PWY\_561\_\_superpathway\_of\_glyoxylate\_cycle\_and\_fatty\_acid\_degradation\_unclassified  
SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY66\_398\_\_TCA\_cycle\_III\_(animals)\_unclassified  
PWY\_841\_\_superpathway\_of\_purine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY\_6703\_\_preQ0\_biosynthesis  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)  
VALSYN\_PWY\_\_L\_valine\_biosynthesis  
PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Haemophilus\_s\_\_Haemophilus\_para  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
PRPP\_PWY\_\_superpathway\_of\_histidine,\_purine,\_and\_pyrimidine\_biosynthesis  
PWY0\_862\_\_(5Z)\_dodec\_5\_enoate\_biosynthesis\_g\_\_Haemophilus\_s\_\_Haemophilus\_para

PWY\_6700\_\_queuosine\_biosynthesis\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainfluenzae  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Haemophilus\_  
PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Haemophilus\_s\_\_Haemophilus\_pa  
PWY\_7234\_\_inosine\_5\_phosphate\_biosynthesis\_III\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainflu  
PWY66\_400\_\_glycolysis\_VI\_(metazoan)\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainfluenzae  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_\_Lactococcus\_s\_\_Lactococcus\_lactis  
PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_\_Haem  
PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
PWY\_6700\_\_queuosine\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainfluenzae  
PWY\_6630\_\_superpathway\_of\_L\_tyrosine\_biosynthesis\_unclassified  
PWY\_6471\_\_peptidoglycan\_biosynthesis\_IV\_(Enterococcus\_faecium)  
PWY\_3001\_\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_pa  
ANAGLYCOLYSIS\_PWY\_\_glycolysis\_III\_(from\_glucose)\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainflu  
PWY\_6121\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Haemophilus\_s\_\_Haemophilu  
PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)  
THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_\_Blau  
HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilus  
P42\_PWY\_\_incomplete\_reductive\_TCA\_cycle  
PWY\_6527\_\_stachyose\_degradation  
HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_g\_\_Blautia\_s\_\_Ruminococcus\_torques  
ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Haemophilus\_  
PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Blautia\_s\_\_Ruminococcus\_torques  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_\_Haemophilus\_s\_\_Haemophilus\_  
PWY\_7392\_\_taxadiene\_biosynthesis\_(engineered)\_unclassified  
PWY\_6122\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Haemophilus\_s\_\_Haemophilu:  
PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_\_Haemophilus\_  
PANTOSYN\_PWY\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_I  
PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
PWY\_7234\_\_inosine\_5\_phosphate\_biosynthesis\_III\_unclassified  
PWY\_6123\_\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_\_Haemophilus\_s\_\_Haemophilus\_parainflue  
UNMAPPED  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Actinomyces\_s\_\_Actinomyces\_odo  
PWY\_5367\_\_petroselinate\_biosynthesis  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Blautia\_s\_\_Ruminococcus\_tor  
PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)  
FASYN\_INITIAL\_PWY\_\_superpathway\_of\_fatty\_acid\_biosynthesis\_initiation\_(E\_coli)\_g\_\_Haemop  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_\_Blautia\_s\_\_Ruminococcus\_torqu  
UNINTEGRATED\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
PWY\_7184\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_I\_unclassified  
PWY\_6608\_\_guanosine\_nucleotides\_degradation\_III\_g\_\_Blautia\_s\_\_Ruminococcus\_torques  
PWY\_7323\_\_superpathway\_of\_GDP\_mannose\_derived\_O\_antigen\_building\_blocks\_biosynthesis\_  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilu  
PWY\_6700\_\_queuosine\_biosynthesis

PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)

METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques

HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I\_unclassified

PWY0\_1241\_\_ADP\_L\_glycero-&beta;-D\_manno\_heptose\_biosynthesis\_g\_Haemophilus\_s\_Haemophilus

PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_g\_Blautia\_s\_Ruminococcus

NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Blautia\_s\_Ruminococcus

PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)

PWY\_821\_\_superpathway\_of\_sulfur\_amino\_acid\_biosynthesis\_(Saccharomyces\_cerevisiae)

PWY\_7210\_\_pyrimidine\_deoxyribonucleotides\_biosynthesis\_from\_CTP\_g\_Haemophilus\_s\_Haemophilus

MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_g\_Blautia\_s\_Ruminococcus

MET\_SAM\_PWY\_\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis

SALVADEHYPOX\_PWY\_\_adenosine\_nucleotides\_degradation\_II\_g\_Blautia\_s\_Ruminococcus\_torques

PWY\_7663\_\_gondooate\_biosynthesis\_(anaerobic)\_g\_Bacteroides\_s\_Bacteroides\_fragilis

TRNA\_CHARGING\_PWY\_\_tRNA\_charging

PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_Blautia\_s\_Ruminococcus\_torques

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_Blautia\_s\_Ruminococcus

PWY\_7198\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_IV\_g\_Haemophilus\_s\_Haemophilus

DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_I

PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_unclassified

P4\_PWY\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_I\_unclassified

PWY\_7219\_\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Bacteroides\_s\_Bacteroides\_fragilis

PWY\_6549\_\_L\_glutamine\_biosynthesis\_III

PWY\_5367\_\_petroselinic\_acid\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques

PWY0\_1296\_\_purine\_ribose\_nucleosides\_degradation\_g\_Blautia\_s\_Ruminococcus\_torques

PWY\_7115\_\_C4\_photosynthetic\_carbon\_assimilation\_cycle,\_NAD\_ME\_type\_unclassified

METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis

PWY\_7357\_\_thiamin\_formation\_from\_pyritiamine\_and\_oxithiamine\_(yeast)\_g\_Lactococcus\_s\_Lactococcus

PWY\_7357\_\_thiamin\_formation\_from\_pyritiamine\_and\_oxithiamine\_(yeast)\_g\_Blautia\_s\_Ruminococcus

PWY\_6124\_\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_Haemophilus\_s\_Haemophilus\_painfluenzae

PWY\_4984\_\_urea\_cycle

HEXITOLDEGSUPER\_PWY\_\_superpathway\_of\_hexitol\_degradation\_(bacteria)\_unclassified

HEMESYN2\_PWY\_\_heme\_biosynthesis\_II\_(anaerobic)\_g\_Actinomyces\_s\_Actinomyces\_odontolyticus

PWY\_6703\_\_preQ0\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques

PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Streptococcus

VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Dorea\_s\_Dorea\_longicatena

PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Haemophilus\_s\_Haemophilus

HOMOSER\_METSYN\_PWY\_\_L\_methionine\_biosynthesis\_I

PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_Blautia\_s\_Ruminococcus\_torques

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_torques

PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Blautia\_s\_Ruminococcus\_torques

RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_Blautia\_s\_Ruminococcus\_torques

PWY\_5686\_\_UMP\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques

PWY\_5686\_\_UMP\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_2\_5

P105\_PWY\_\_TCA\_cycle\_IV\_(2\_oxoglutarate\_decarboxylase)\_unclassified

PWY\_1042\_\_glycolysis\_IV\_(plant\_cytosol)

PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_unclassified

COLANSYN\_PWY\_colanic\_acid\_building\_blocks\_biosynthesis\_unclassified  
PWY0\_1297\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_2942\_L\_lysine\_biosynthesis\_III\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_5941\_glycogen\_degradation\_II\_(eukaryotic)\_unclassified  
PWY\_6317\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_6151\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Blautia\_s\_Ruminococcus\_torques  
GLUTORN\_PWY\_L\_ornithine\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_5686\_UMP\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
COMPLETE\_ARO\_PWY\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_7111\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Dorea\_s\_Dorea\_longicatena  
PWY\_6936\_seleno\_amino\_acid\_biosynthesis\_g\_Dorea\_s\_Dorea\_longicatena  
SER\_GLYSYN\_PWY\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_5973\_cis\_vaccenate\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_6737\_starch\_degradation\_V\_g\_Blautia\_s\_Ruminococcus\_torques  
DENOVOPURINE2\_PWY\_superpathway\_of\_purine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Haemophilus\_s\_Haemophilus\_sparitius  
ARO\_PWY\_chorismate\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_torques  
PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Dorea\_s\_Dorea\_longicatena  
PWY0\_781\_aspartate\_superpathway\_unclassified  
PWY\_7187\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Haemophilus\_s\_Haemophilus\_sparitius  
PWY0\_1296\_purine\_ribonucleosides\_degradation  
PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_241\_C4\_photosynthetic\_carbon\_assimilation\_cycle,\_NADP\_ME\_type  
CITRULBIO\_PWY\_L\_citrulline\_biosynthesis  
PWY\_6163\_chorismate\_biosynthesis\_from\_3\_dehydroquinolate\_g\_Blautia\_s\_Ruminococcus\_torques  
VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques  
1CMET2\_PWY\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_2\_5  
PWY\_7208\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_Blautia\_s\_Ruminococcus\_torques  
PEPTIDOLYCANSYN\_PWY\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_Blautia\_s\_Ruminococcus\_torques  
COA\_PWY\_coenzyme\_A\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_6385\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_6387\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Blautia\_s\_Ruminococcus\_torques  
UNINTEGRATED\_g\_Bifidobacterium\_s\_Bifidobacterium\_adolescentis  
COA\_PWY\_1\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_6124\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
TRPSYN\_PWY\_L\_tryptophan\_biosynthesis\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_7111\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_2\_5  
PWY\_7003\_glycerol\_degradation\_to\_butanol\_unclassified  
MET\_SAM\_PWY\_superpathway\_of\_S\_adenosyl\_L\_methionine\_biosynthesis\_unclassified  
PWY\_5154\_L\_arginine\_biosynthesis\_III\_(via\_N\_acetyl\_L\_citrulline)\_g\_Blautia\_s\_Ruminococcus\_torques  
PWY\_6122\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Dorea\_s\_Dorea\_longicatena  
PWY\_6277\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_g\_Dorea\_s\_Dorea\_longicatena  
P441\_PWY\_superpathway\_of\_N\_acetylneuraminate\_degradation\_unclassified  
PWY\_7400\_L\_arginine\_biosynthesis\_IV\_(archaeobacteria)\_g\_Blautia\_s\_Ruminococcus\_torques

ARGSYN\_PWY\_\_L\_arginine\_biosynthesis\_I\_(via\_L\_ornithine)\_g\_\_Blautia\_s\_\_Ruminococcus\_torque  
 PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Blaut  
 ARGSYNBSUB\_PWY\_\_L\_arginine\_biosynthesis\_II\_(acetyl\_cycle)\_g\_\_Blautia\_s\_\_Ruminococcus\_tor  
 PYRIDOSYN\_PWY\_\_pyridoxal\_5\_\_phosphate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_  
 PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_\_phosphate\_biosynthesis\_and\_salvage\_g\_\_Bacteroid  
 UNINTEGRATED\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
 PWY\_6121\_\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_I\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
 CITRULBIO\_PWY\_\_L\_citrulline\_biosynthesis\_unclassified  
 GLUCONEO\_PWY\_\_gluconeogenesis\_I\_unclassified  
 PWY\_6606\_\_guanosine\_nucleotides\_degradation\_II\_unclassified  
 PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_g\_\_Blautia\_s\_\_Ruminococcus\_torque  
 COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
 GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)  
 PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Bacte  
 PWY0\_166\_\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_(E\_coli)  
 PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I  
 SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_\_Actinomyces\_s\_\_  
 PYRIDOSYN\_PWY\_\_pyridoxal\_5\_\_phosphate\_biosynthesis\_I\_unclassified  
 PWY\_7219\_\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_f  
 PWY\_821\_\_superpathway\_of\_sulfur\_amino\_acid\_biosynthesis\_(Saccharomyces\_cerevisiae)\_uncla  
 PWY0\_781\_\_aspartate\_superpathway  
 PWY0\_1298\_\_superpathway\_of\_pyrimidine\_deoxyribonucleosides\_degradation\_unclassified  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3  
 PWY\_5464\_\_superpathway\_of\_cytosolic\_glycolysis\_(plants)\_pyruvate\_dehydrogenase\_and\_TCA\_  
 PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Actinomyces  
 COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis  
 PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
 METSYN\_PWY\_\_L\_homoserine\_and\_L\_methionine\_biosynthesis\_unclassified  
 PWY\_7282\_\_4\_amin\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_g\_\_Bacteroid  
 PYRIDNUCSAL\_PWY\_\_NAD\_salvage\_pathway\_I  
 PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_unclassified  
 PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Collinsella\_s\_\_Collinsella\_aerofaciens  
 PWY\_7560\_\_methylerythritol\_phosphate\_pathway\_II\_unclassified  
 UNINTEGRATED\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_lactaris  
 PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_\_phosphate\_biosynthesis\_and\_salvage\_unclassified  
 PWY\_6168\_\_flavin\_biosynthesis\_III\_(fungi)\_unclassified  
 SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I  
 DAPLYSINESYN\_PWY\_\_L\_lysine\_biosynthesis\_I\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
 PWY\_6167\_\_flavin\_biosynthesis\_II\_(archaea)  
 PYRIDOSYN\_PWY\_\_pyridoxal\_5\_\_phosphate\_biosynthesis\_I  
 UNINTEGRATED\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
 PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_coni  
 PWY\_7221\_\_guanosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Actinomyces\_s\_\_Actinomyces  
 PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Actinomyces



PWY0\_1479\_\_tRNA\_processing  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Coproccoccus\_s\_\_Coproccoccus  
 PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_\_Actinomyces\_s\_\_Actinomyces\_od  
 PWY4LZ\_257\_\_superpathway\_of\_fermentation\_(Chlamydomonas\_reinhardtii)  
 PWY\_4984\_\_urea\_cycle\_unclassified  
 PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Actinomyces\_s\_\_Acti  
 PWY\_7222\_\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_\_Actinomyces\_s\_\_Acti  
 PWY\_7196\_\_superpathway\_of\_pyrimidine\_ribonucleosides\_salvage  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Bacteroides\_s\_\_Bacteroides\_fragi  
 PWY\_6122\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Coproccoccus\_s\_\_Coproccoccus  
 PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_\_Coproccoccus\_s  
 PWY\_7282\_\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)\_unclassified  
 PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_unclassified  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_s  
 PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_unclassified  
 POLYAMSYN\_PWY\_\_superpathway\_of\_polyamine\_biosynthesis\_I  
 ARO\_PWY\_\_chorismate\_biosynthesis\_I  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_\_biosynthesis\_unclassified  
 PWY\_6121\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Coproccoccus\_s\_\_Coproccoccus  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I  
 PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_unclassified  
 UNINTEGRATED\_g\_\_Blautia\_s\_\_Ruminococcus\_torques  
 PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_unclassified  
 PWY\_6470\_\_peptidoglycan\_biosynthesis\_V\_(&beta\_lactam\_resistance)  
 NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_I  
 PWY\_6588\_\_pyruvate\_fermentation\_to\_acetone\_unclassified  
 PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Actinomyces\_s\_\_Actinomyces  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Collinsella\_s\_\_Collinsella\_aerofacie  
 PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyt  
 PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_frag  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis  
 PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_unclassified  
 PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_fragilis  
 PWY\_6270\_\_isoprene\_biosynthesis\_I\_unclassified  
 PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Bacte  
 PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_unclassified  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY\_6737\_\_starch\_degradation\_V\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 UNINTEGRATED\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 P162\_PWY\_\_L\_glutamate\_degradation\_V\_(via\_hydroxyglutarate)  
 UNINTEGRATED\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Copr  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_com

PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
 PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_unclassified  
 PWY\_7663\_\_gondoate\_biosynthesis\_(anaerobic)\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinate  
 PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY\_6588\_\_pyruvate\_fermentation\_to\_acetone  
 PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_unclassified  
 PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY66\_399\_\_gluconeogenesis\_III\_unclassified  
 PWY\_7391\_\_isoprene\_biosynthesis\_II\_(engineered)  
 PWY\_6121\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Actinomyces\_s\_\_Actinomyces\_sp\_1373  
 PWY\_7242\_\_D\_fructuronate\_degradation  
 PWY\_5347\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(transsulfuration)\_unclassified  
 P164\_PWY\_\_purine\_nucleobases\_degradation\_I\_(anaerobic)  
 PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY\_6545\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_III\_unclassified  
 PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 ARGORNPROST\_PWY\_\_arginine\_ornithine\_and\_proline\_interconversion  
 PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Coproccoccus\_s\_\_Coproccoccus\_comes  
 PWY\_724\_\_superpathway\_of\_L\_lysine\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_\_Methanobrevibacter\_smithii  
 P161\_PWY\_\_acetylene\_degradation\_unclassified  
 PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Methanobrevibacter\_s\_\_Methanobrevibacter\_smithii  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
 PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 ARG+POLYAMINE\_SYN\_\_superpathway\_of\_arginine\_and\_polyamine\_biosynthesis\_unclassified  
 DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Methanobrevibacter\_s\_\_Methanobrevibacter\_smithii  
 SO4ASSIM\_PWY\_\_sulfate\_reduction\_I\_(assimilatory)\_unclassified  
 GLYCOLYSIS\_E\_D\_\_superpathway\_of\_glycolysis\_and\_Entner\_Doudoroff\_unclassified  
 PWY\_2941\_\_L\_lysine\_biosynthesis\_II\_g\_\_Methanobrevibacter\_s\_\_Methanobrevibacter\_smithii  
 1CMET2\_PWY\_\_N10\_formyl\_tetrahydrofolate\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilus  
 PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_\_Actinomyces\_s\_\_Actinomyces\_odontolyticus  
 GLUCUROCAT\_PWY\_\_superpathway\_of\_beta\_D\_glucuronide\_and\_D\_glucuronate\_degradation  
 THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_\_Methanobrevibacter\_s\_\_Methanobrevibacter\_smithii  
 PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5  
 GALACT\_GLUCUROCAT\_PWY\_\_superpathway\_of\_hexuronide\_and\_hexuronate\_degradation  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_sp\_3\_2\_5

PWY\_5198\_factor\_420\_biosynthesis  
 PWY\_5198\_factor\_420\_biosynthesis\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smithii  
 PWY\_2942\_L\_lysine\_biosynthesis\_III\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
 COA\_PWY\_1\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_unclassified  
 PWY\_2942\_L\_lysine\_biosynthesis\_III\_g\_Actinomyces\_s\_Actinomyces\_odontolyticus  
 PWY\_6897\_thiamin\_salvage\_II\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smithii  
 PWY\_3001\_superpathway\_of\_L\_ileucine\_biosynthesis\_I\_g\_Methanobrevibacter\_s\_Methano  
 PWY\_5101\_L\_ileucine\_biosynthesis\_II\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smith  
 PWY\_5104\_L\_ileucine\_biosynthesis\_IV\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smit  
 PWY\_6121\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Methanobrevibacter\_s\_Metha  
 UNINTEGRATED\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smithii  
 PWY\_5189\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_g\_Methanobrevibacter\_s\_Methanobr  
 UNINTEGRATED\_unclassified  
 PWY\_7242\_D\_fructuronate\_degradation\_g\_Eubacterium\_s\_Eubacterium\_rectale  
 PWY\_7211\_superpathway\_of\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_unclassif  
 PWY\_6353\_purine\_nucleotides\_degradation\_II\_(aerobic)\_unclassified  
 PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Methanobrevibacter\_s\_Meth  
 PWY\_6277\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_Methanobrevi  
 PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_2\_5  
 BRANCHED\_CHAIN\_AA\_SYN\_PWY\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_Me  
 PWY\_6122\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Actinomyces\_s\_Actinomyces  
 PWY\_6277\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_Actinomyces\_s  
 PWY\_6151\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Streptococcus\_s\_Streptococcus\_parasanguini  
 PWY\_6167\_flavin\_biosynthesis\_II\_(archaea)\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_s  
 PWY\_5464\_superpathway\_of\_cytosolic\_glycolysis\_(plants)\_pyruvate\_dehydrogenase\_and\_TCA\_  
 DTDPRHAMSYN\_PWY\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_Methanobrevibacter\_s\_Methanob  
 PWY\_241\_C4\_photosynthetic\_carbon\_assimilation\_cycle,\_NADP\_ME\_type\_unclassified  
 PWY\_6124\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_2\_5  
 PWY\_7219\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Methanobrevibacter\_s\_Meth  
 PWY\_7357\_thiamin\_formation\_from\_pyriothiamine\_and\_oxothiamine\_(yeast)\_g\_Methanobrevi  
 PWY\_5103\_L\_ileucine\_biosynthesis\_III\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smit  
 PWY\_5121\_superpathway\_of\_geranylgeranyl\_diphosphate\_biosynthesis\_II\_(via\_MEP)\_unclassif  
 METHANOGENESIS\_PWY\_methanogenesis\_from\_H2\_and\_CO2\_g\_Methanobrevibacter\_s\_Meth  
 METHANOGENESIS\_PWY\_methanogenesis\_from\_H2\_and\_CO2  
 HSERMETANA\_PWY\_L\_methionine\_biosynthesis\_III\_g\_Methanobrevibacter\_s\_Methanobrevib  
 ANAGLYCOLYSIS\_PWY\_glycolysis\_III\_(from\_glucose)\_unclassified  
 GLYCOGENSYNTH\_PWY\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_unclassified  
 PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_2\_5  
 PWY\_5188\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_Methanobrevibacter\_s\_Methano  
 PWY\_6936\_seleno\_amino\_acid\_biosynthesis\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_s  
 PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
 NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)  
 PWY\_6549\_L\_glutamine\_biosynthesis\_III\_unclassified  
 PWY\_5005\_biotin\_biosynthesis\_II\_unclassified  
 ILEUSYN\_PWY\_L\_ileucine\_biosynthesis\_I\_(from\_threonine)\_g\_Methanobrevibacter\_s\_Meth  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smithii  
 HISTSYN\_PWY\_L\_histidine\_biosynthesis\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smit

PWY\_6305\_\_putrescine\_biosynthesis\_IV  
 FERMENTATION\_PWY\_\_mixed\_acid\_fermentation\_unclassified  
 PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_unclassified  
 COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_Streptococcus\_s\_Streptococcus\_salivarius  
 PWY\_5686\_\_UMP\_biosynthesis\_unclassified  
 GALACTUROCAT\_PWY\_\_D\_galacturonate\_degradation\_I  
 PWY\_7286\_\_7\_(3\_aminopropanoate)\_wyosine\_biosynthesis  
 PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Methanobrevibacter\_s\_Methanobrevibacter  
 PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinate\_g\_Methanobrevibacter\_s\_Methanobrevibacter  
 PPGPPMET\_PWY\_\_ppGpp\_biosynthesis\_unclassified  
 PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_unclassified  
 PWY\_5505\_\_L\_glutamate\_and\_L\_glutamine\_biosynthesis  
 PWY\_6174\_\_mevalonate\_pathway\_II\_(archaea)  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus\_salivarius  
 PWY\_5304\_\_superpathway\_of\_sulfur\_oxidation\_(Acidianus\_ambivalens)\_unclassified  
 PWY\_7187\_\_pyrimidine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_unclassified  
 PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Streptococcus\_s\_Streptococcus  
 PWY\_6507\_\_4\_deoxy\_L\_threo\_hex\_4\_enopyranuronate\_degradation  
 PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_unclassified  
 PWY\_6124\_\_inosine\_5\_\_phosphate\_biosynthesis\_II\_g\_Streptococcus\_s\_Streptococcus\_salivarius  
 PWY\_5505\_\_L\_glutamate\_and\_L\_glutamine\_biosynthesis\_unclassified  
 PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_Streptococcus\_s\_Streptococcus\_salivarius  
 PWY\_841\_\_superpathway\_of\_purine\_nucleotides\_de\_novo\_biosynthesis\_I\_unclassified  
 PWY\_3841\_\_folate\_transformations\_II\_g\_Streptococcus\_s\_Streptococcus\_salivarius  
 NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_I\_g\_Dorea\_s\_Dorea\_longicatena  
 PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_unclassified  
 PRPP\_PWY\_\_superpathway\_of\_histidine\_purine\_and\_pyrimidine\_biosynthesis\_unclassified  
 TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_sp\_3\_2\_5  
 DENOVPURINE2\_PWY\_\_superpathway\_of\_purine\_nucleotides\_de\_novo\_biosynthesis\_II\_unclassified  
 ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_Roseburia\_s\_Roseburia  
 NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_unclassified  
 PWY\_5484\_\_glycolysis\_II\_(from\_fructose\_6\_phosphate)\_unclassified  
 PWY\_6527\_\_stachyose\_degradation\_unclassified  
 PWY\_5022\_\_4\_aminobutanoate\_degradation\_V  
 P162\_PWY\_\_L\_glutamate\_degradation\_V\_(via\_hydroxyglutarate)\_unclassified  
 UNINTEGRATED\_g\_Bacteroides\_s\_Bacteroides\_fragilis  
 PWY\_6123\_\_inosine\_5\_\_phosphate\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus\_salivarius  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus  
 SULFATE\_CYS\_PWY\_\_superpathway\_of\_sulfate\_assimilation\_and\_cysteine\_biosynthesis\_unclassified  
 UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus  
 PWY\_6703\_\_preQ0\_biosynthesis\_unclassified  
 PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Actinomyces\_s\_Actinomyces  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_Streptococcus\_s\_Streptococcus  
 PWY\_6936\_\_seleno\_amino\_acid\_biosynthesis\_unclassified  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Actinomyces\_s\_Actinomyces  
 PWY\_1861\_\_formaldehyde\_assimilation\_II\_(RuMP\_Cycle)

PYRIDNUCSYN\_PWY\_\_NAD\_biosynthesis\_I\_(from\_aspartate)  
 PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_unclassified  
 PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_unclassified  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus  
 PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Streptococcus\_s\_Streptococcus\_salivarius  
 PWY66\_422\_\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_unclassified  
 GLYCOLYSIS\_glycolysis\_I\_(from\_glucose\_6\_phosphate)\_unclassified  
 PANTOSYN\_PWY\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_I\_g\_Blautia\_s\_Ruminococcus  
 PWY\_5676\_\_acetyl\_CoA\_fermentation\_to\_butanoate\_II\_unclassified  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_unclassified  
 PWY\_5030\_\_L\_histidine\_degradation\_III\_unclassified  
 PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_unclassified  
 P108\_PWY\_\_pyruvate\_fermentation\_to\_propanoate\_I\_unclassified  
 ANAEROFRUCAT\_PWY\_\_homolactic\_fermentation\_unclassified  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_g\_Methanobrevibacter\_s\_Methanobrevibacter\_smithii  
 PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_Ruminococcus\_s\_Ruminococcus  
 PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Streptococcus\_s\_Streptococcus  
 PWY\_5384\_\_sucrose\_degradation\_IV\_(sucrose\_phosphorylase)\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 PWY\_6737\_\_starch\_degradation\_V\_g\_Ruminococcus\_s\_Ruminococcus\_lactaris  
 NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_I\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 PWY0\_162\_\_superpathway\_of\_pyrimidine\_ribonucleotides\_de\_novo\_biosynthesis\_unclassified  
 NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_lactaris  
 PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Ruminococcus\_s\_Ruminococcus  
 GOLPDLCAT\_PWY\_\_superpathway\_of\_glycerol\_degradation\_to\_1,3\_propanediol\_unclassified  
 PWY\_5345\_\_superpathway\_of\_L\_methionine\_biosynthesis\_(by\_sulfhydrylation)\_unclassified  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Bifidobacterium\_s\_Bifidobacterium  
 PWY66\_398\_\_TCA\_cycle\_III\_(animals)  
 PWY\_6124\_\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_Streptococcus\_s\_Streptococcus\_thermophilus  
 THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_unclassified  
 PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
 PWY\_7234\_\_inosine\_5\_phosphate\_biosynthesis\_III\_g\_Methanobrevibacter\_s\_Methanobrevibacter  
 PWY\_6122\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Streptococcus\_s\_Streptococcus  
 PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_Streptococcus  
 SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_unclassified  
 PWY\_724\_\_superpathway\_of\_L\_lysine,\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_Blautia  
 P164\_PWY\_\_purine\_nucleobases\_degradation\_I\_(anaerobic)\_unclassified  
 PWY\_7196\_\_superpathway\_of\_pyrimidine\_ribonucleosides\_salvage\_unclassified  
 PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_Bifidobacterium\_s\_Bifidobacterium  
 PWY\_6123\_\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus\_thermophilus  
 PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_unclassified  
 PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Ruminococcus

HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_adolescentis  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
PWY\_6124\_\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_\_Methanobrevibacter\_s\_\_Methanobrevibacter\_ruminantium  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
P124\_PWY\_\_Bifidobacterium\_shunt\_unclassified  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_adolescentis  
PWY\_6124\_\_inosine\_5\_phosphate\_biosynthesis\_II\_unclassified  
PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_adolescentis  
PWY\_7221\_\_guanosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_torques  
PYRIDNUCSYN\_PWY\_\_NAD\_biosynthesis\_I\_(from\_aspartate)\_unclassified  
PWY\_6121\_\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
PWY4LZ\_257\_\_superpathway\_of\_fermentation\_(Chlamydomonas\_reinhardtii)\_unclassified  
PWY\_7219\_\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_I\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_adolescentis  
PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinate\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
UNINTEGRATED\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY\_6122\_\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
PWY\_7221\_\_guanosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
PWY\_6122\_\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_II\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_adolescentis  
PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_adolescentis  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
GLYCOGENSYNTH\_PWY\_\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
THRESYN\_PWY\_\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_adolescentis  
PWY\_6123\_\_inosine\_5\_phosphate\_biosynthesis\_I\_unclassified  
SALVADEHYPOX\_PWY\_\_adenosine\_nucleotides\_degradation\_II\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY\_6124\_\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Bifidobacterium\_s\_\_Bifidobacterium\_adolescentis  
PWY66\_422\_\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY\_6700\_\_queuosine\_biosynthesis\_unclassified  
PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
PWY\_6608\_\_guanosine\_nucleotides\_degradation\_III\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
PWY\_7219\_\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY0\_1296\_\_purine\_ribose\_nucleosides\_degradation\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
SALVADEHYPOX\_PWY\_\_adenosine\_nucleotides\_degradation\_II\_unclassified  
DTDPRHAMSYN\_PWY\_\_dTDP\_L\_rhamnose\_biosynthesis\_I\_unclassified

COMPLETE\_ARO\_PWY\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_Eubacterium\_s  
 UNINTEGRATED\_g\_Ruminococcus\_s\_Ruminococcus\_sp\_5\_1\_39BFAA  
 PWY\_7219\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobac  
 PWY\_7111\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Eubacterium\_s\_Eubacteriu  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium\_rectale  
 PWY\_5104\_L\_ileucine\_biosynthesis\_IV\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 GLYCOGENSYNTH\_PWY\_glycogen\_biosynthesis\_I\_(from\_ADP\_D\_Glucose)\_g\_Eubacterium\_s\_Ei  
 POLYAMSYN\_PWY\_superpathway\_of\_polyamine\_biosynthesis\_I\_unclassified  
 PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus\_parasang  
 PWY\_7234\_inosine\_5\_phosphate\_biosynthesis\_III\_g\_Streptococcus\_s\_Streptococcus\_parasar  
 PWY\_7219\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium  
 PWY\_7221\_guanosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_Bifidobacterium\_s\_Bifidobac  
 PWY\_6595\_superpathway\_of\_guanosine\_nucleotides\_degradation\_(plants)\_unclassified  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 PWY\_6121\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcu  
 PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Eubacterium\_s\_Eubacterium\_rectale  
 PWY\_6151\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Ruminococcus\_s\_Ruminococcus\_lactaris  
 PWY\_5367\_petroselinic\_acid\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium\_rectale  
 TRPSYN\_PWY\_L\_tryptophan\_biosynthesis\_unclassified  
 PWY\_5188\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_Ruminococcus\_s\_Ruminococcus  
 PWY\_6608\_guanosine\_nucleotides\_degradation\_III\_unclassified  
 PYRIDNUCSYN\_PWY\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_Roseburia\_s\_Roseburia\_intestir  
 PWY\_7111\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_Ruminococcus\_s\_Ruminococ  
 SER\_GLYSYN\_PWY\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Roseburia\_s\_Ro  
 PWY\_5097\_L\_lysine\_biosynthesis\_VI\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 PWY\_1269\_CMP\_3\_deoxy\_D\_manno\_octulosonate\_biosynthesis\_I\_unclassified  
 PWY\_7003\_glycerol\_degradation\_to\_butanol  
 PWY\_7221\_guanosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium  
 PEPTIDOGLYCANSYN\_PWY\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_u  
 PWY\_7221\_guanosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_unclassified  
 CALVIN\_PWY\_Calvin\_Benson\_Bassham\_cycle\_unclassified  
 PWY\_6737\_starch\_degradation\_V  
 NONMEVIPP\_PWY\_methylerythritol\_phosphate\_pathway\_I\_g\_Eubacterium\_s\_Eubacterium\_re  
 PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Ruminococcus\_s\_Ruminococcus\_lactaris  
 PWY\_6121\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcu  
 PANTO\_PWY\_phosphopantothenate\_biosynthesis\_I\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 PWY\_6387\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_coni  
 PWY\_6386\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Euba  
 COA\_PWY\_1\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Eubacterium\_s\_Eubacterium\_rect  
 PWY\_6163\_chorismate\_biosynthesis\_from\_3\_dehydroquinic\_acid\_g\_Roseburia\_s\_Roseburia\_intes  
 PWY\_6122\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_II\_g\_Streptococcus\_s\_Streptococc  
 PWY\_6277\_superpathway\_of\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_g\_Streptococcus  
 UNINTEGRATED\_g\_Roseburia\_s\_Roseburia\_intestinalis  
 PWY0\_1296\_purine\_ribose\_nucleosides\_degradation\_g\_Eubacterium\_s\_Eubacterium\_rectale  
 PWY\_5686\_UMP\_biosynthesis\_g\_Eubacterium\_s\_Eubacterium\_rectale  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_sp\_5\_1\_39BFAA  
 PWY\_6386\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_unclassif

PANTOSYN\_PWY\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_I\_unclassified  
OANTIGEN\_PWY\_\_O\_antigen\_building\_blocks\_biosynthesis\_(E\_coli)\_g\_\_Bifidobacterium\_s\_\_Bifi  
HISTSYN\_PWY\_\_L\_histidine\_biosynthesis\_unclassified  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
PWY\_7219\_\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Roseburia\_s\_\_Roseburia\_inte  
PWY\_7199\_\_pyrimidine\_deoxyribonucleosides\_salvage\_g\_\_Streptococcus\_s\_\_Streptococcus\_para  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Roseburia\_s\_\_R  
PWY\_7219\_\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococ  
PWY\_7221\_\_guanosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococ  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_cont  
PWY\_6121\_\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_I\_g\_\_Roseburia\_s\_\_Roseburia\_intes  
PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_39BFAA  
ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinate\_g\_\_Ruminococcus\_s\_\_Ruminococ  
PWY\_6737\_\_starch\_degradation\_V\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_39BFAA  
PWY\_5973\_\_cis\_vaccenate\_biosynthesis\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectale  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_unclassified  
HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_unclassified  
PWY\_6122\_\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_II\_g\_\_Roseburia\_s\_\_Roseburia\_intes  
PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribose\_nucleotide\_biosynthesis\_g\_\_Roseburia\_s\_\_  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_unclassified  
VALSYN\_PWY\_\_L\_valine\_biosynthesis\_unclassified  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_\_Roseburia\_s\_\_Roseburia\_inte  
PWY\_3001\_\_superpathway\_of\_L\_isoleucine\_biosynthesis\_I\_unclassified  
PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Roseburia\_s\_\_Roseburia\_intestinalis  
PWY66\_422\_\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_\_Roseburia\_s\_\_Roseburia\_intestin  
PWY\_3841\_\_folate\_transformations\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_39BFAA  
BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_\_Str  
PWY0\_1296\_\_purine\_ribose\_nucleosides\_degradation\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_3  
PWY\_5189\_\_tetrapyrrole\_biosynthesis\_II\_(from\_glycine)\_unclassified  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Streptococcus  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Ruminococcus\_  
COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_unclassified  
PWY\_5100\_\_pyruvate\_fermentation\_to\_acetate\_and\_lactate\_II\_g\_\_Streptococcus\_s\_\_Streptococ  
PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_39BFAA  
ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_39BFAA  
NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_\_Ruminococcus\_s\_  
PWY\_5103\_\_L\_isoleucine\_biosynthesis\_III\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus  
PWY66\_399\_\_gluconeogenesis\_III  
PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_unclassified  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_unclassified  
COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_unclassified  
UNINTEGRATED\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_39E



PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_3!  
PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasangu  
PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasang  
PWY\_5659\_\_GDP\_mannose\_biosynthesis\_unclassified  
ILEUSYN\_PWY\_\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_\_Streptococcus\_s\_\_Streptococc  
VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Roseburia\_s\_\_I  
PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Rumi  
PWY\_6609\_\_adenine\_and\_adenosine\_salvage\_III\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophi  
PEPTIDOLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g  
PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococ  
PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_lactari  
PWY\_6317\_\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_\_Streptococcus\_s\_\_Streptococcus\_ther  
PWY66\_422\_\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_\_Streptococcus\_s\_\_Streptococcus  
PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Streptococcus\_s\_\_Streptococcus\_par  
UNINTEGRATED\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilus  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_cont  
PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Streptococcus  
NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_I\_g\_\_Bifidobacterium\_s\_\_Bifidobacter  
PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_lactaris  
PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_lactaris  
PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Strep  
TCA\_\_TCA\_cycle\_I\_(prokaryotic)\_unclassified  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Streptococcus  
PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Streptococcus  
PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_\_Streptococcus\_s\_\_Streptococ  
PWY0\_1061\_\_superpathway\_of\_L\_alanine\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_para  
VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilus  
PWY\_5177\_\_glutaryl\_CoA\_degradation\_unclassified  
TRPSYN\_PWY\_\_L\_tryptophan\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
PWY\_6122\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_II\_unclassified  
PWY\_6277\_\_superpathway\_of\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_unclassified  
PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Streptococcus\_s\_\_Streptococ  
PWY\_6121\_\_5\_aminoimidazole\_ribonucleotide\_biosynthesis\_I\_unclassified  
ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Streptococcus  
COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_s  
PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_cont  
PWY\_5030\_\_L\_histidine\_degradation\_III\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Streptococcus\_s\_\_Streptoco  
PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Strep  
UDPNAGSYN\_PWY\_\_UDP\_N\_acetyl\_D\_glucosamine\_biosynthesis\_I\_g\_\_Streptococcus\_s\_\_Streptoc  
LACTOSECAT\_PWY\_\_lactose\_and\_galactose\_degradation\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_p  
ARO\_PWY\_\_chorismate\_biosynthesis\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilus  
PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_\_Streptococcus\_s\_\_Streptococ  
PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5\_1\_39E  
COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Streptococcus\_

PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_sp\_5...  
 PWY\_5188\_\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_unclassified  
 PWY\_7208\_\_superpathway\_of\_pyrimidine\_nucleobases\_salvage\_g\_\_Streptococcus\_s\_\_Streptococcus\_glycolysis\_IV\_(plant\_cytosol)\_unclassified  
 POLYAMINSYN3\_PWY\_\_superpathway\_of\_polyamine\_biosynthesis\_II  
 HISDEG\_PWY\_\_L\_histidine\_degradation\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
 PWY\_6737\_\_starch\_degradation\_V\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
 UNINTEGRATED\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii  
 BRANCHED\_CHAIN\_AA\_SYN\_PWY\_\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_unclassified  
 PWY\_4981\_\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
 PWY\_7197\_\_pyrimidine\_deoxyribonucleotide\_phosphorylation\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 PWY0\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_unclassified  
 PWY\_3841\_\_folate\_transformations\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_thermophilus  
 HISDEG\_PWY\_\_L\_histidine\_degradation\_I  
 COMPLETE\_ARO\_PWY\_\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_I\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
 PWY\_5177\_\_glutaryl\_CoA\_degradation  
 TRNA\_CHARGING\_PWY\_\_tRNA\_charging\_unclassified  
 PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 PWY\_6590\_\_superpathway\_of\_Clostridium\_acetobutylicum\_acidogenic\_fermentation  
 PWY\_7237\_\_myo\_,\_chiro\_ and \_scillo\_inositol\_degradation  
 CRNFORCAT\_PWY\_\_creatinine\_degradation\_I\_unclassified  
 CENTFERM\_PWY\_\_pyruvate\_fermentation\_to\_butanoate  
 PWY\_6527\_\_stachyose\_degradation\_g\_\_Dorea\_s\_\_Dorea\_longicatena  
 PWY\_5103\_\_L\_isoleucine\_biosynthesis\_III\_unclassified  
 PWY0\_1297\_\_superpathway\_of\_purine\_deoxyribonucleosides\_degradation\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_unclassified  
 PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 HSERMETANA\_PWY\_\_L\_methionine\_biosynthesis\_III\_unclassified  
 PWY\_6703\_\_preQ0\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_salivarius  
 PWY\_6737\_\_starch\_degradation\_V\_unclassified  
 COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 PWY\_7209\_\_superpathway\_of\_pyrimidine\_ribonucleosides\_degradation  
 UNINTEGRATED\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_bromii  
 GLUDEG\_I\_PWY\_\_GABA\_shunt  
 PWY\_5101\_\_L\_isoleucine\_biosynthesis\_II\_unclassified  
 PWY\_6628\_\_superpathway\_of\_L\_phenylalanine\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 PWY\_6163\_\_chorismate\_biosynthesis\_from\_3\_dehydroquinone\_unclassified  
 HSERMETANA\_PWY\_\_L\_methionine\_biosynthesis\_III  
 PWY\_5686\_\_UMP\_biosynthesis\_g\_\_Streptococcus\_s\_\_Streptococcus\_parasanguinis  
 PWY\_7237\_\_myo\_,\_chiro\_ and \_scillo\_inositol\_degradation\_unclassified  
 GLCMANNANAUT\_PWY\_\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N\_acetylglucosamine\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 CALVIN\_PWY\_\_Calvin\_Benson\_Bassham\_cycle\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii  
 PYRIDNUCSYN\_PWY\_\_NAD\_biosynthesis\_I\_(from\_aspartate)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 NONOXIPENT\_PWY\_\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_pantothenate\_biosynthesis\_II\_g\_\_Streptococcus\_s\_\_Streptococcus\_pantothenate\_biosynthesis\_II...  
 NONMEVIPP\_PWY\_\_methylerythritol\_phosphate\_pathway\_I\_unclassified

COMPLETE\_ARO\_PWY\_superpathway\_of\_aromatic\_amino\_acid\_biosynthesis\_unclassified  
 PWY\_5304\_superpathway\_of\_sulfur\_oxidation\_(Acidianus\_ambivalens)\_g\_Ruminococcus\_s\_R  
 PWY\_7219\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococ  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_1042\_glycolysis\_IV\_(plant\_cytosol)\_g\_Ruminococcus\_s\_Ruminococcus\_bromii  
 ARO\_PWY\_chorismate\_biosynthesis\_I\_unclassified  
 GLCMANNANAUT\_PWY\_superpathway\_of\_N\_acetylglucosamine,\_N\_acetylmannosamine\_and\_N  
 PWY\_5188\_tetrapyrrole\_biosynthesis\_I\_(from\_glutamate)\_g\_Ruminococcus\_s\_Ruminococcus  
 COA\_PWY\_coenzyme\_A\_biosynthesis\_I\_g\_Streptococcus\_s\_Streptococcus\_parasanguinis  
 PWY\_6123\_inosine\_5\_phosphate\_biosynthesis\_I\_g\_Faecalibacterium\_s\_Faecalibacterium\_pra  
 PWY\_4242\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_Streptococcus\_s\_Streptococcu  
 PWY\_6969\_TCA\_cycle\_V\_(2\_oxoglutarate\_ferredoxin\_oxidoreductase)\_unclassified  
 PWY\_6124\_inosine\_5\_phosphate\_biosynthesis\_II\_g\_Faecalibacterium\_s\_Faecalibacterium\_pra  
 CRNFORCAT\_PWY\_creatinine\_degradation\_I  
 CALVIN\_PWY\_Calvin\_Benson\_Bassham\_cycle\_g\_Ruminococcus\_s\_Ruminococcus\_bromii  
 GALACTUROCAT\_PWY\_D\_galacturonate\_degradation\_I\_g\_Faecalibacterium\_s\_Faecalibacteriu  
 PWY\_5686\_UMP\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_bromii  
 SER\_GLYSYN\_PWY\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_Ruminococcus\_s  
 PWY0\_1296\_purine\_ribose\_nucleosides\_degradation\_g\_Streptococcus\_s\_Streptococcus\_thermop  
 HISTSYN\_PWY\_L\_histidine\_biosynthesis\_g\_Ruminococcus\_s\_Ruminococcus\_bromii  
 PWY\_6151\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Ruminococcus\_s\_Ruminococcus\_bromii  
 GALACT\_GLUUROCAT\_PWY\_superpathway\_of\_hexuronide\_and\_hexuronate\_degradation\_g\_F  
 PWY\_6151\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Dorea\_s\_Dorea\_longicatena  
 PWY\_6151\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 PWY\_6609\_adenine\_and\_adenosine\_salvage\_III\_g\_Faecalibacterium\_s\_Faecalibacterium\_prau  
 PWY\_621\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_Faecalibacterium\_s\_Faecalibacteriu  
 PWY\_6737\_starch\_degradation\_V\_g\_Ruminococcus\_s\_Ruminococcus\_bromii  
 PWY\_7242\_D\_fructuronate\_degradation\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_7282\_4\_amino\_2\_methyl\_5\_phosphomethylpyrimidine\_biosynthesis\_(yeast)  
 HOMOSER\_METSYN\_PWY\_L\_methionine\_biosynthesis\_I\_g\_Ruminococcus\_s\_Ruminococcus\_br  
 GLUCUROCAT\_PWY\_superpathway\_of\_beta\_D\_glucuronide\_and\_D\_glucuronate\_degradation  
 ILEUSYN\_PWY\_L\_isoleucine\_biosynthesis\_I\_(from\_threonine)\_g\_Faecalibacterium\_s\_Faecaliba  
 VALSYN\_PWY\_L\_valine\_biosynthesis\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_7219\_adenosine\_ribose\_nucleotides\_de\_novo\_biosynthesis\_g\_Faecalibacterium\_s\_Faecalib  
 PWY\_6737\_starch\_degradation\_V\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 BRANCHED\_CHAIN\_AA\_SYN\_PWY\_superpathway\_of\_branched\_amino\_acid\_biosynthesis\_g\_Fae  
 PWY\_6317\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_Ruminococcus\_s\_Ruminococcus\_bro  
 PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Ruminococcus\_s\_Ruminococcus  
 DTDPRHAMSYN\_PWY\_dTDP\_L\_rhamnose\_biosynthesis\_I\_g\_Faecalibacterium\_s\_Faecalibacteri  
 COA\_PWY\_1\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_Bacteroides\_s\_Bacteroides\_vulgat  
 PWY\_5686\_UMP\_biosynthesis\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_3001\_superpathway\_of\_L\_isoleucine\_biosynthesis\_I\_g\_Faecalibacterium\_s\_Faecalibacte  
 THRESYN\_PWY\_superpathway\_of\_L\_threonine\_biosynthesis\_g\_Faecalibacterium\_s\_Faecalibac  
 PWY\_6317\_galactose\_degradation\_I\_(Leloir\_pathway)\_g\_Faecalibacterium\_s\_Faecalibacteriu  
 PWY66\_422\_D\_galactose\_degradation\_V\_(Leloir\_pathway)\_g\_Faecalibacterium\_s\_Faecalibacte  
 PWY\_5103\_L\_isoleucine\_biosynthesis\_III\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 NONOXIPENT\_PWY\_pentose\_phosphate\_pathway\_(non\_oxidative\_branch)\_g\_Faecalibacterium

PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxythiamine\_(yeast)\_g\_\_Ruminococcus

PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_\_Faecalibacterium

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Bacteroides\_s\_\_Bacteroides

PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium

PWY\_3841\_\_folate\_transformations\_II\_g\_\_Bacteroides\_s\_\_Bacteroides\_vulgatus

PWY\_5177\_\_glutaryl\_CoA\_degradation\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii

PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Faecalibacterium

NONMEVIPP\_PWY\_\_methylethanolphosphate\_pathway\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_vulgatus

PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Ruminococcus\_s\_\_Ruminococcus

VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus\_bromii

PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Streptococcus\_s\_\_Streptococcus

PWY\_7111\_\_pyruvate\_fermentation\_to\_isobutanol\_(engineered)\_g\_\_Bacteroides\_s\_\_Bacteroides

VALSYN\_PWY\_\_L\_valine\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_vulgatus

PWY\_6122\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium

PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_\_Faecalibacterium

PWY\_6121\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium

PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium

PWY0\_1586\_\_peptidoglycan\_maturation\_(meso\_diaminopimelate\_containing)\_g\_\_Faecalibacterium

PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Faecalibacterium

PWY0\_1296\_\_purine\_ribonucleosides\_degradation\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii

ASPASN\_PWY\_\_superpathway\_of\_L\_aspartate\_and\_L\_asparagine\_biosynthesis\_g\_\_Faecalibacterium

PWY\_5695\_\_urate\_biosynthesis\_inosine\_5\_phosphate\_degradation\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium

SER\_GLYSYN\_PWY\_\_superpathway\_of\_L\_serine\_and\_glycine\_biosynthesis\_I\_g\_\_Faecalibacterium

PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii

PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Ruminococcus\_s\_\_Ruminococcus

PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_vulgatus

COA\_PWY\_1\_\_coenzyme\_A\_biosynthesis\_II\_(mammalian)\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium

PWY\_5659\_\_GDP\_mannose\_biosynthesis\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii

PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Bacteroides\_s\_\_Bacteroides\_vulgatus

PWY\_7221\_\_guanosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium

PWY\_6737\_\_starch\_degradation\_V\_g\_\_Dorea\_s\_\_Dorea\_longicatena

PEPTIDOGLYCANSYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Faecalibacterium

PWY\_7228\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides

PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii

PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii

UNINTEGRATED\_g\_\_Bacteroides\_s\_\_Bacteroides\_vulgatus

PWY\_6121\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_\_Ruminococcus\_s\_\_Ruminococcus

PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_\_Faecalibacterium

PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_\_Faecalibacterium\_s\_\_Faecalibacterium\_prausnitzii

P42\_PWY\_\_incomplete\_reductive\_TCA\_cycle\_unclassified

PANTO\_PWY\_\_phosphopantothenate\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides\_vulgatus

PWY\_724\_\_superpathway\_of\_L\_lysine\_L\_threonine\_and\_L\_methionine\_biosynthesis\_II\_g\_\_Faecalibacterium

PWY0\_845\_\_superpathway\_of\_pyridoxal\_5\_phosphate\_biosynthesis\_and\_salvage

PWY\_7229\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_I\_g\_\_Bacteroides\_s\_\_Bacteroides

PWY\_6122\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_\_Ruminococcus\_s\_\_Ruminococcus

PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_\_Ruminococcus

PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_unclassified

PWY\_6507\_\_4\_deoxy\_L\_threo\_hex\_4\_enopyranuronate\_degradation\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_6126\_\_superpathway\_of\_adenosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_unclassified  
 PWY\_6527\_\_stachyose\_degradation\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_6703\_\_preQ0\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 PWY\_5667\_\_CDP\_diacylglycerol\_biosynthesis\_I\_g\_Ruminococcus\_s\_Ruminococcus\_bromii  
 PWY0\_1319\_\_CDP\_diacylglycerol\_biosynthesis\_II\_g\_Ruminococcus\_s\_Ruminococcus\_bromii  
 PWY\_6125\_\_superpathway\_of\_guanosine\_nucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 PWY\_2942\_\_L\_lysine\_biosynthesis\_III\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 PWY\_6700\_\_queuosine\_biosynthesis\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 PWY\_5690\_\_TCA\_cycle\_II\_(plants\_and\_fungi)\_unclassified  
 COA\_PWY\_\_coenzyme\_A\_biosynthesis\_I\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_5104\_\_L\_isoleucine\_biosynthesis\_IV\_unclassified  
 PWY\_7357\_\_thiamin\_formation\_from\_pyriothiamine\_and\_oxothiamine\_(yeast)\_g\_Faecalibacterium\_prausnitzii  
 PWY\_5097\_\_L\_lysine\_biosynthesis\_VI\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 PWY\_7220\_\_adenosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 PWY\_7222\_\_guanosine\_deoxyribonucleotides\_de\_novo\_biosynthesis\_II\_g\_Bacteroides\_s\_Bacteroides\_vulgatus  
 RHAMCAT\_PWY\_\_L\_rhamnose\_degradation\_I\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_6385\_\_peptidoglycan\_biosynthesis\_III\_(mycobacteria)\_unclassified  
 COBALSYN\_PWY\_\_adenosylcobalamin\_salvage\_from\_cobinamide\_I\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 PWY\_5101\_\_L\_isoleucine\_biosynthesis\_II  
 PWY\_7383\_\_anaerobic\_energy\_metabolism\_(invertebrates,\_cytosol)\_unclassified  
 THISYNARA\_PWY\_\_superpathway\_of\_thiamin\_diphosphate\_biosynthesis\_III\_(eukaryotes)\_g\_Faecalibacterium\_prausnitzii  
 PWY\_6151\_\_S\_adenosyl\_L\_methionine\_cycle\_I\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_4242\_\_pantothenate\_and\_coenzyme\_A\_biosynthesis\_III\_g\_Faecalibacterium\_s\_Faecalibacterium\_prausnitzii  
 GALACTUROCAT\_PWY\_\_D\_galacturonate\_degradation\_I\_unclassified  
 PWY\_7456\_\_mannan\_degradation  
 PWY\_7383\_\_anaerobic\_energy\_metabolism\_(invertebrates,\_cytosol)  
 ARGININE\_SYN4\_PWY\_\_L\_ornithine\_de\_novo\_biosynthesis  
 PWY\_7219\_\_adenosine\_ribonucleotides\_de\_novo\_biosynthesis\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_4981\_\_L\_proline\_biosynthesis\_II\_(from\_arginine)\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_6387\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 UNINTEGRATED\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_6386\_\_UDP\_N\_acetylmuramoyl\_pentapeptide\_biosynthesis\_II\_(lysine\_containing)\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_5030\_\_L\_histidine\_degradation\_III  
 PWY\_6737\_\_starch\_degradation\_V\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PEPTIDOLYCAN\_SYN\_PWY\_\_peptidoglycan\_biosynthesis\_I\_(meso\_diaminopimelate\_containing)\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_5104\_\_L\_isoleucine\_biosynthesis\_IV  
 PWY\_5304\_\_superpathway\_of\_sulfur\_oxidation\_(Acidianus\_ambivalens)  
 GALACT\_GLUROCAT\_PWY\_\_superpathway\_of\_hexuronide\_and\_hexuronate\_degradation\_unclassified  
 PWY\_6147\_\_6\_hydroxymethyl\_dihydropterin\_diphosphate\_biosynthesis\_I\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_6121\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_I\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_6122\_\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_II\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_6277\_\_superpathway\_of\_5\_aminimidazole\_ribonucleotide\_biosynthesis\_g\_Collinsella\_s\_Collinsella\_aerofaciens  
 PWY\_7242\_\_D\_fructuronate\_degradation\_unclassified  
 PWY\_6305\_\_putrescine\_biosynthesis\_IV\_unclassified  
 GLUCUROCAT\_PWY\_\_superpathway\_of\_beta\_D\_glucuronide\_and\_D\_glucuronate\_degradation\_unclassified

PWY\_621\_\_sucrose\_degradation\_III\_(sucrose\_invertase)\_g\_\_Eubacterium\_s\_\_Eubacterium\_rectal  
PWY\_6507\_\_4\_deoxy\_L\_threo\_hex\_4\_enopyranuronate\_degradation\_unclassified  
P108\_PWY\_\_pyruvate\_fermentation\_to\_propanoate\_I

Vanderbilt-patient_Post-FMT1	UNC-donor_Donor	UNC-patient_Pre-FMT
0.000042	0.000000157	0.000118668
0.0000335	9.24E-08	0.000103054
0.0000393	0.000000133	0.00011325
0.0000393	0.000000133	0.00011325
0.0000357	0.000000142	0.00011139
0.0000323	8.93E-08	0.0000844
0.0000366	0.000000152	0.000107571
0.0000368	0.000000119	0.000101853
0.000127998	0.000000458	0.000173713
0.0000363	0.000000162	0.000108013
0.0000345	0.000000143	0.000100397
0.0000378	0.000000172	0.0000823
0.0000313	0.000000172	0.0000919
0.0000365	0.000000163	0.000103687
0.000142484	0.000000602	0.000191611
0.0263132	0.000127845	0.0641757
0.0000409	0.000000219	0.00012425
0.000170954	0.00000104	0.000242941
0.000141437	0.00000062	0.00019046
0.000174824	0.000000856	0.000242033
0.0000361	0.00000018	0.000103203
0.000139831	0.000000626	0.000189723
0.000139837	0.000000626	0.000189893
0.0000497	0.000000254	0.000147517
0.0000343	0.000000192	0.0000957
0.0000422	0.000000224	0.000122176
0.000127368	0.000000621	0.000191745
0.000127368	0.000000621	0.000191745
0.0000324	0.00000021	0.0000945
0.0000344	0.000000196	0.0000967
0.0000437	0.000000239	0.00012748
0.0000418	0.000000284	0.000129199
0.0000418	0.000000284	0.000129199
0.0000347	0.000000209	0.0000981
0.0000339	0.000000174	0.0000876
0.000132679	0.000000666	0.00018458
0.0000433	0.000000253	0.00010629
0.0000409	0.000000246	0.000122776
0.0000409	0.000000246	0.000122776
0.0000353	0.0000002	0.000100711
0.0000353	0.0000002	0.000100711
0.000143964	0.000000944	0.000197398
0.00000201	0.000000151	0.000000191
0.00000656	0.000000117	0.000000288
0.000116581	0.000000678	0.000173393
0.000152796	0.000000966	0.0002101

0.00000418	0.000000161	0.000000128
0.000142358	0.0000008	0.000192559
0.00000765	0.000000202	0.000000152
0.00000259	0.000000191	0.000000245
0.000032	0.000000243	0.0000912
0.00000196	8.01E-08	8.08E-08
0.00000559	0.000000211	0.000000201
0.000144202	0.00000101	0.000195162
0.00000978	0.000000381	0.000000338
0.00000467	0.000000223	0.000000221
0.00000773	0.0000003	0.000000179
0.000174824	0.00000133	0.000242033
0.000174824	0.00000133	0.000242033
0.00000966	0.00000041	0.000000539
0.0000075	0.000000281	0.000000427
0.00000657	0.00000025	0.000000281
0.00000692	0.000000177	0.000000109
0.00000603	0.000000142	0.000000178
0.000144202	0.00000116	0.000195162
0.00000446	0.000000174	0.000000101
0.00000566	0.000000146	0.000000212
0.00000495	0.000000128	0.0000157
0.00000495	0.000000128	0.0000157
0.00000524	0.000000148	6.02E-08
9.72E-08	0.000000183	0.000000227
9.72E-08	0.000000183	0.000000227
0.00000651	0.000000271	0.000000171
0.00000681	0.000000167	0.000000144
0.00000645	0.000000199	0.000000146
0.0000159	0.000000329	0.0000272
0.00000485	0.000000164	0.000000169
0.00000518	0.000000122	0.00000016
0.00000644	0.000000285	0.000000213
0.00000665	0.000000208	0.000000177
0.00000437	0.000000133	0.000000131
0.00000762	0.000000305	0.000000328
0.163006	0.00132921	0.230738
0.00000461	0.00000026	0.000000247
0.00000367	0.000000173	0.000000238
0.00000607	0.000000162	0.000000131
0.00000365	0.000000167	0.000000218
0.0000036	0.000000112	7.96E-08
0.00000565	0.000000178	0.000000118
0.00000529	0.000000211	0.000000199
0.00000613	0.000000249	0.000000334
0.00000472	0.000000128	0.000000158
0.00000472	0.000000128	0.000000158



0.00000596	0.000000169	0.000000198
0.00000472	0.000000178	0.000000219
0.00000118	0.000000316	0.000000235
0.00000756	0.000000344	0.000000334
0.00000447	0.000000193	0.000000219
0.00000407	0.000000198	0.000000257
0.00000612	0.000000183	0.000000132
0.00000612	0.000000183	0.000000132
0.00000612	0.000000183	0.000000132
0.000006	0.000000244	0.000000212
0.00000616	0.000000264	0.000000203
0.0000047	0.000000206	0.000000185
0.00000876	0.000000327	0.000000025
0.00000574	0.000000273	0.000000244
0.00000565	0.000000225	0.000000343
0.00000432	0.000000207	0.000000262
0.00000877	0.000000322	0.000000412
0.000000107	2.67E-08	0
0.000000137	3.34E-08	0
0.00000519	0.000000171	0.000000181
0.00000016	3.86E-08	0
0.00000838	0.000000322	0.000000186
0.00000544	0.000000252	0.000000025
0.00000221	0.000000213	0.000000164
0.00000545	0.000000213	0.000000184
0.00000545	0.000000213	0.000000184
0.00000604	0.000000162	8.96E-08
0.00000604	0.000000162	8.96E-08
0.00000604	0.000000162	8.96E-08
0.00000604	0.000000162	8.96E-08
0.00000613	0.000000229	0.000000264
0.0000061	0.000000235	0.000000256
0.00000917	0.000000349	0.000000359
0.00000865	0.000000394	0.000000384
0.00000562	0.000000146	9.78E-08
0.00000562	0.000000146	9.78E-08
0.000006	0.000000221	0.000000261
0.0000343	5.06E-08	0.0000114
0.0000106	0.000000354	0.000000917
0.00000475	0.000000194	4.09E-08
0.00000614	0.000000245	0.000000248
0.00000587	0.000000254	0.000000183
0.00000705	0.000000321	0.000000261
0.00000704	0.000000218	0.000000286
0.00000528	0.000000363	0.000000358
0.00000434	0.000000188	0.000000157
0.00000424	0.000000378	0.0000135

0.0000424	0.000000378	0.0000135
0.0000546	0.00000017	0.000000151
0.0000838	0.00000049	0.000000459
0.0000392	0.000000253	0.000000335
0.0000599	0.000000263	0.000000215
0.0000469	0.000000228	0.000000202
0.0000193	0.000000991	0.000000868
0.0000794	0.000000317	0.000000357
0.0000125	0.000000439	0.000000397
0.0000597	0.00000018	0.000000156
0.0000585	0.000000254	0.000000186
0.0000107	0.000000459	0.000000398
0.000007	0.000000223	0.000000112
0.00000915	0.000000341	0.000000171
0.0000577	0.000000271	0.000000236
0.0000446	0.000000257	0.000000019
0.000007	0.000000218	0.000000245
0.0000804	0.000000288	0.000000013
0.0000804	0.000000288	0.000000013
0.0000804	0.000000288	0.000000013
0.0000804	0.000000288	0.000000013
0.0000553	0.000000249	0.000000191
0.0000555	0.000000287	0.000000214
0.0000852	0.000000316	0.000000267
0.0000735	0.000000347	0.000000479
0.0000113	0.000000487	0.0000135
0.0000693	0.000000252	0.000000097
0.0000378	0.000000213	0.000000197
0.0000596	0.000000285	0.000000269
0.0000623	0.00000015	0.000000105
0.0000543	0.000000168	0.000000103
0.0000507	0.000000238	0.0000181
0.0000454	0.000000251	8.82E-08
0.0000727	0.000000394	0.000000391
0.0000429	0.00000021	0.00000026
0.0000849	0.000000222	0.000000135
0.0000124	0.000000361	0.000000493
0.0000125	0.000000358	0.000000069
0.0000983	0.000000408	0.000000665
0.0000816	0.000000418	0.0000135
0.0000924	0.000000369	0.000000274
0.0000045	0.000000286	0.000000279
0.0000727	0.000000453	0.000000247
0.0000108	0.000000443	0.000000843
0.0000282	4.31E-08	1.56E-08
0.0000536	0.00000029	0.000000769
0.0000499	0.000000261	0.000000151

0.0000038	0.000000272	0.000000144
0.00000531	0.000000306	0.000000915
0.00000559	0.000000316	0.000000286
0.00000321	0.000000187	0.000000224
0.0000071	0.000000318	0.000000233
0.00000277	4.54E-08	2.49E-08
0.0000056	0.000000268	0.000000277
0.00000816	0.000000412	0.000000321
0.00000317	5.37E-08	2.92E-08
0.00000368	0.000000189	0.000000134
0.00000974	0.000000435	0.000000377
0.00000974	0.000000435	0.000000364
0.00000621	0.000000328	0.000000303
0.00000644	0.000000311	0.000000545
0.00000485	0.000000238	0.000000268
0.00000137	0.000000121	0.000000111
0.00000765	0.000000451	0.000000576
0.00000504	0.000000207	0.000000419
0.00000446	0.000000292	0.000000203
0.00000482	0.000000207	0.000000185
0.00000857	0.000000436	0.000000414
0.00000912	0.000000426	0.000000027
0.00000543	0.000000203	0.000000206
0.0000186	0.000000907	0.000000708
0.0000043	0.000000258	0
0.00000598	0.000000311	0.000000215
0.00000441	0.000000108	0.000000247
0.00000446	0.000000227	0.000000125
0.000003	0.000000148	0.000000221
0.000003	0.000000148	0.000000221
0.00000868	0.000000371	0.000000148
0.00000868	0.000000371	0.000000148
0.00000455	9.38E-08	5.45E-08
0.00000626	0.000000112	6.43E-08
0.00000626	0.000000112	6.43E-08
0.0000118	0.000000476	0.000000418
0.0000491	0.000000125	0
0.00000889	0.000000435	0.000000323
0.00000577	0.000000237	0.000000154
0.0000052	0.000000196	0.000000112
0.0140066	0.000370775	0.187459
0.00000698	0.000000467	0.000000185
0.0000106	0.000000271	0.0000196
0.0000115	0.000000064	0.000000029
0.000004	0.000000131	6.42E-08
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0.0000194	0.000000189	0

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0.00000881	0.00000035	0.000000179
0.00000769	0.000000375	0.000000275
0.00000515	0.000000287	5.59E-08
0.0000073	0.000000331	0.00000018
0.0000716	0.00000015	9.83E-08
0.00000728	0.000000353	0.000000379
0.00000314	0.000000254	0.000000197
0.0000064	0.000000297	0.000000333
0.0000576	0.000000147	0.000000191
0.0000638	0.000000142	5.23E-08
0.0000443	0.000000119	0.000000066
0.00004	0.000000537	0.0000266
0.00000614	0.000000345	0.000000326
0.0000188	0.000000998	0.0000219
0.00000648	0.000000347	0.000000307
0.0000764	0.000000174	0.000000123
0.00000177	0.000000135	7.99E-08
0.0000503	0.000000107	5.88E-08
0.0000193	0.000000193	0
0.0000507	0.00000014	0
0.00000521	0.000000183	0.000000104
0.000133112	0.000000244	0.000000208
0.00000536	0.000000216	3.46E-08
0.00000546	0.000000219	0.000000823
0.0548372	0.000142193	0.0009482
0.0000784	0.00000013	5.22E-08
0.000017	9.95E-08	0
0.0000022	0.000000169	0.000000142
0.0000185	6.35E-08	0
0.0000201	7.96E-08	0
0.000127978	0.000000263	0.000000188
0.000127978	0.000000263	0.000000188
0.00000396	0.000000546	0.000149077
0.0000446	0.000000922	0.0000317
0.0000222	4.85E-08	0
0.000107419	0.000000222	0.000000144
0.0000173	5.24E-08	0
0.000284305	0.00000435	0.000372259
0.0000613	0.000000196	5.84E-08
0.00000472	6.31E-08	0.000000292
0.0000333	0.000000175	5.92E-08
0.000129312	0.000000194	0.000000215
0.000129312	0.000000194	0.000000215
0.0000114	0.000000858	0.0000301
0.00000537	0.000000186	0.000000106
0.00000537	0.000000186	0.000000106

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0.000000197	3.16E-08	0
0.0000901	0.000000207	0.000000179
0.0000169	0.000000088	0.000000081
0.0000925	0.00000021	0.000000203
0.00000361	0.000000211	0.000000104
0.0000771	0.000000212	0.000000154
0.0000841	0.000000225	0.000000143
0.0000223	5.23E-08	0
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0.0000191	0.00000129	0.0000488
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0.0000207	5.77E-08	0
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0.00000626	0.000000186	9.59E-08
0.0000177	8.93E-08	0
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0.0000399	0.000000295	0.00018801
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0.00000659	0.000000423	0.00000123
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0.000116859	0.000000313	0.000000197
0.00000439	0.000000263	0.000000173
0.0000166	9.06E-08	0
0.0000413	0.000000235	0.00000102
0.0000219	0.00000144	0.0000129
0.0000497	0.000000401	0.00000014
0.00101787	0.0000597	0.0374877
0.0000319	0.00000148	0.00000747
0.00000379	0.000000736	0.0000332
0.0000227	0.000000126	0
0.000022	0.00000114	0.0000256
0.0000247	0.00000137	0.0000335
0.0000352	0.00000329	0.000105639
0.0000352	0.00000329	0.000105639
0.0000185	0.00000212	0.0000343
0.0000037	0.000000346	0.000000832
0.0000317	0.00000139	0.00000541
0.0139074	0.0000728	0
0.00000811	0.000000263	0.00000155
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0.00000773	0.000000137	0.000013
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0.0000516	0.00000489	0.000141551
0.0000516	0.00000489	0.000141551
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0.00000785	0.000000266	0.00000115
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0.0000116	0.00000102	0.000018
0.0000116	0.00000102	0.000018
0.0000116	0.00000102	0.000018
0.0000237	0.000000184	0
0.0000214	0.000000141	0
0.00000114	0.000000219	0.00018125
0.0000199	0.000000167	0
0.00000103	0.00000003	0.000176507
0.000000586	0.000000216	7.72E-08
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0.0000106	0.000000759	0.0000526
0.0000211	0.00000163	0.0000381
0.0000267	0.00000244	0.00000538
0.0000516	0.00000489	0.000141551
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0.00000139	0.000000374	0.000247666
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0.00000287	0.000000578	0
0.0000233	0.00000238	0.0000261
0.000000851	0.000000256	0.000168997
0.00000122	0.000000481	0.000200117
0.000000778	0.000000229	0.000153235
0.00000153	0.000000593	0.000242045
0.000000739	0.000000248	0.000149348
0.0000729	0.0000067	0.000174911
0.0000729	0.0000067	0.000174911
0.000000925	0.000000421	0.000191391
0.00000124	0.000000459	0.000242108
0.000000856	0.000000282	0.000176272
0.000000743	0.000000358	0.000178942
0.000000371	0	0
0.000000778	0.000000378	0.000188292
0.00000127	0.000000441	0.000248398
0.00000018	0.000000039	0.0000609
0.000000772	0.000000035	0.000175188
0.000001	0.000000411	0.000225496
0.000000972	0.0000004	0.000217908
0.00000103	0.000000404	0.00022163
0.00000113	0.00000063	0.00024343
0.000000832	0.000000334	0.00016322
0.00000134	0.00000055	0.000241877
0.000000827	0.00000033	0.000163841
0.00000103	0.000000428	0.00022163
0.00000153	0.000000596	0.000255083
0.000000498	0.000000279	0.000146099
0.00000827	0.000000122	4.36E-08
0.00000112	0.000000456	0.000198005
0.00000153	0.000000573	0.000260547
0.00000153	0.000000573	0.000260547
0.00000115	0.000000528	0.000253872
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0.000000355	0.00000012	0.000114693
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0.000000502	0.000000307	0.000164497
0.000038	0.000000217	0
0.00000117	0.00000058	0.000257021
0.00000117	0.00000058	0.000257021
0.00000141	0.000000582	0.000243669
0.00000873	0.00000089	0.000103363
0.0000011	0.000000503	0.00020159
0.000000647	0.000000317	0.000238012
0.000000666	0	0

0.00000322	0	0
0.00000385	0	0
0.00000823	0.000000494	0.0000399
0	0.000000297	0.000000164
0.00000376	0	0
0	5.54E-08	0.0000017
0.000221379	0.00000733	0.0000194
0.00000644	0	0
0.00000166	0.00000025	0
0.0000294	0.0000167	0.000235039
0.000419653	0	0.00000077
0.00000764	0.00000232	0.00000482
0.000519781	0	0.00000117
0.000000446	5.22E-08	0
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0.000454264	0	0.000000984
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0.000000259	0.000000112	0.000000227
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0.0000222	0.0000176	0.0000489

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0	0.000000266	0
0	0.00000011	0
0	0.0000022	0
0	0.00000015	0
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0.000419282	0.000680838	0.000550733
0.000419282	0.000680838	0.000550733
0	0.000000167	0
0	0.000000123	0.00000021
0	0.000000123	0.00000021
0.0000964	0.000174737	0.000120931
0	9.87E-08	0

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0	0.000000186	0
0	0.000000157	0
0	0.000000141	0
0	0.000000169	0
0	0.000000307	0
0	0.000000103	0
0.00000635	0.0000145	0
0.000000123	0.000000558	0
0	0.000000193	0
0	0.000000736	0
0.000036	0.0000266	0.0000097
0	0.000000111	0
0	0.000000189	0
0	0.000000178	0
0	0.000000313	0
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0.00000116	0.00000212	0
0.0000237	0.0000822	0.0000447
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0.00000249	0.00000696	0
0	0.000000171	0
0.00000726	0.0000192	0
0	0.000000187	0
0	0.00000011	0.0000005
0	0.00000018	0
0	0.00000018	0
0.000114788	0.000237823	0.00021822
0.00000295	0.0000105	0
0.0000036	0.0000116	0.00000158
0	0.000000212	0
0.233267	0.338666	0.242221
0.0000027	0.0000105	0
0	0.00000015	0.000000192
0.000105322	0.0000809	0.00000335
0.00000236	0.00000645	0
0.000224978	0.000258275	0.0000533
0	0.000000274	0
0.000000208	0.000000468	0
0.00000239	0.00000704	0
0.00138671	0.00171447	0
0.0000183	0.0000176	0.00000606
0.00000274	0.00000768	0
0	0.000000277	0
0.00000197	0.00000328	0
0.000137936	0.000332795	0.000160552

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0.00000272	0.00000788	0
0.0000363	0.0000105	0.00000194
0	0.000000104	0
0.00000257	0.00000764	0
0.00000346	0.0000128	0
0	0.00000015	0
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0.00000263	0.00000815	0
0.000252968	0.000279961	0.0000613
0.0000026	0.00000869	0
0.000000173	0.00000031	0
0.000337973	0.000411717	0.000286698
0.00000241	0.00000787	0
0.0000025	0.00000784	0
0	6.03E-08	0
0.00022171	0.000450772	0.000177182
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8.85E-08	0.000000371	0
0.00000208	0.0000123	0
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0.000224178	0.000265068	0.000053
0	3.97E-08	0
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0	0.000000266	0
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0.00000205	0.00000505	0.00000296
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0	0	0
0.00000211	0.00000993	0
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0.00000248	0.00000722	0
0.00000226	0.00000788	0
0.00000186	0.00000075	0
0.000000168	0.000000338	0
0	0.000000438	0
0.000234462	0.000530786	0.000393885
0.0000426	0.0000851	0.000152615

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0.00000187	0.00000776	0
0.00000214	0.0000068	0
7.99E-08	0.000000294	0
9.27E-08	0.000000455	0
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0.00000211	0.0000105	0
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0.00000233	0.0000072	0
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0.00000239	0.0000077	0
0.00000447	0.0000116	0
0.00000135	0.0000038	0.00000214
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0.00000375	0.00000985	0.00000255
0.00000503	0.0000382	0.000000277
0.00000228	0.00000744	0
0.00000199	0.00000708	0
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0.00000237	0.00000876	0
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0.000000605	0.000000554	0.000000381
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0.00000186	0.00000649	0
0.00000167	0.00000835	0
0.00000167	0.00000835	0
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0.000000164	0.000000475	0
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0.00000165	0.00000286	0.00000198
0.00000239	0.00000726	0
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0	0.00000034	0
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0.0000053	0.00000452	0
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0.000000128	0.000000414	0
0.0000207	0.000107816	0.00000476
0.000000189	0.000000496	0
0.00000946	0.0000147	0.00000718
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0	0.00000481	0
0	0.00000767	0.00000108
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0.00000105	0.00000168	0.00000106
0.0000162	0.000102345	0.00000225
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0	0.000000569	0.000000343

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0.00000189	0.00000403	0
0	0.000000626	0.000000375
0.0000069	0.0000102	0.0000124
0	0.000000878	0.000000225
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0	0.000000641	0.000000381
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4.48E-08	0.000000384	0
0.00000194	0.00000401	0
0.00000194	0.00000401	0
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0.0000458	0.000110548	0.000143834
0.000000199	0.00000059	0
8.44E-08	0.000000426	0
0.00000967	0.0000306	0.0000643
0.0000149	0.0000738	0.0000239
0.000288449	0.000653426	0.000184134
0	0.000000403	0
0.00000168	0.0000038	0
0.0000227	0.000151755	0.0000269
0.00000618	0.000017	0.0000114
0.00258156	0.0074474	0
0.0000165	0.0000254	0.00000868
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0	0.000000578	0.000000315
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0.00000018	0.000000399	0
4.83E-08	0.000000483	0
0.0000709	0.000167243	0.0000175
0.0000342	0.0000536	0.0000282
5.11E-08	0.000000421	0
0.0000153	0.0000151	0.00000369
3.76E-08	0.000000364	0
0.0000164	0.0000233	0.00000765
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0.000000189	0.000000305	0
0.00000145	0.00000368	0
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0.00000167	0.00000342	0
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0.00000152	0.00000779	0
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7.57E-08	0.000000411	0
5.42E-08	0.000000423	0
0.00000273	0.0000157	0.00000249
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0.0000211	0.0000177	0.00000337
0.00000955	0.0000228	0.00000702
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0.000000152	0.000000383	0
0.0000148	0.0000171	0.00000258
0.00000149	0.0000038	0
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0.00000123	0.00000313	0
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0.000000271	0.000000637	0.000000263
0.000000206	0.00000171	0.000000051
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0	0.000000632	0.000000257
0.0000406	0.000155424	0.000000507
0.000000184	0.000000542	0.000000217
0.000000144	0.000000491	0
0.0000199	0.000142076	0.000000563
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0.000000191	0.000000816	0.000000311
6.32E-08	0.000000434	0
0.0000436	0.000146973	0.000153067
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0.000000168	0.000000726	0.000000272
0.000000184	0.000000659	0.000000247
0.000000171	0.000000837	0.000000313
0.000000193	0.00000104	0.000000376
0.000000249	0.000000856	0.000000309
0.000136554	0.000424182	0.000148351
0.000000019	0.000000666	0.000000233
0.0318402	0.0895219	0.0469319
0.0000329	0.00000443	5.16E-08
0.0000109	0.0000164	0.00000271
0.0000027	0.00000689	0.00000306
0.000000286	0.000000991	0.00000034
0.000000286	0.000000991	0.00000034
0.000000128	0.000000481	0
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0	0.000000938	0
0.000000221	0.000000958	0.00000032
0.000000279	0.00000361	0.000000763
0.000000114	0.000000444	0
0.000000272	0.00000105	0.000000345
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0	0.00000608	0.000000659
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0.00000958	0.0000221	0.00000591
9.84E-08	0.000000273	0
0.000000255	0.000000753	0.000000236
0.000000259	0.000000475	0.000000149
4.21E-08	0.000000407	0
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0.000000293	0.00000108	0.000000322
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0.00000182	0.0000215	0.00000302
5.56E-08	0.000000373	0
0.00000959	0.00003	0.00000396
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0.00000175	0.00000992	0.00000331
0.00000805	0.0000685	0.000035
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0.000000159	0.00000208	0
0.000000433	0.00000346	0.000000833
9.83E-08	0.00000138	0
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0	0.00000043	7.13E-08
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0	0.00000818	0

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0.00000424	0.0000204	0.00000491
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0.000000236	0.000000591	7.48E-08
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8.42E-08	0.00000183	0
0	0.00000102	0.000000122
0	0.00000104	0.000000122
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0.000137473	0.0000433	0.000000253
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0.0000313	0.0000274	0.000000377
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0.000034	0.0000342	0.000000549
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0.000000152	0.00000729	0.000000625
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0	0.00000135	8.24E-08
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0	0.000000848	4.93E-08
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0	0.000000839	4.81E-08
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0	0.00000103	5.63E-08
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0.00000763	0.0000493	0.00000568
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0.0000342	0.0000308	0.000000442
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0	0.00000126	5.04E-08
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0.0000364	0.0000354	0.000000353
0.0000187	0.000127555	0.0000155
0	0.000025	0
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0	0.00000117	4.51E-08
0.0000124	0.000127555	0.0000262
0.0000124	0.000127555	0.0000262
0	0.00000129	4.88E-08
0.0000114	0.0000823	0.0000152
0	0.00000151	5.74E-08
0	0.00000151	5.74E-08
0	0.000000617	0
0	0.000018	0.000000053
0.000000245	0.000000685	0
0	0.0000204	0.000000543
0.00000262	0.0000104	0.000000348
0	0.00000144	0
0	0.0000177	0.000000455
0.00000422	0.0000428	0.00000801
0.0000012	0.00000172	0.000000131
0	0.0000168	0.000000484
0	0.0000179	0.000000442
0	0.00000174	0.000000062
0.000000236	0.000000661	0
0	0.0000176	0.000000414
0.00000148	0.0000392	0.0000018
0.0000149	0.000108692	0.00000724
0.0000149	0.000108692	0.00000724
0.000000508	0.0000197	0.00000285
0.000121563	0.000490894	0
0	0.0000191	0.00000049

0	0.0000191	0.00000049
0.000000308	0.000000853	0
0.00000031	0.000000719	0
0.00000836	0.0000349	0.00000198
0.000000263	0.00000079	0
0.000000263	0.00000079	0
0	0.00000195	6.23E-08
0	0.000021	0.000000487
0.00000127	0.00000223	0.000000173
0	0.0000201	0.000000465
0	0.0000177	0.000000359
0	0.000000995	3.09E-08
0.000000981	0.00000116	8.24E-08
0.000000981	0.00000116	8.24E-08
0.000000108	0.000000558	0
0.00144349	0.00213801	0.000148041
0	0.0000201	0.000000451
0.00000164	0.00000241	0.000000148
0.00000274	0.00000275	0
0	0.00000122	3.59E-08
0	0.00000122	3.59E-08
0.000000176	0.000000659	0
0	0.00000644	0.000000343
0.000000097	0.00000134	0
0.00000178	0.00000274	0.00000018
0.0000023	0.00000303	0.000000161
0.000000153	0.000000584	0
0.00000195	0.00000302	0.000000188
0.000000431	0.00000767	0.000000302
0.000000163	0.000000762	0
0.0000454	0.000159899	0.00000553
0.0000454	0.000159899	0.00000553
0.0000019	0.00000221	0.000000115
0.0000418	0.000157976	0.00000586
8.77E-08	0.00000129	0
0	0.00000153	0
0	0.0000148	0.000000289
0.000000171	0.00000063	0
0.000000112	0.000000389	0
0.000000236	0.000000812	0
0.00000179	0.00000273	0.000000154
0.0000015	0.00000284	0.000000152
0.000000164	0.000000644	0
0.00000156	0.00000273	0.000000148
7.13E-08	0.00000113	0
0	0.0000173	0.000000298
0.00000163	0.00000293	0.000000162

0.00000153	0.00000281	0.00000014
0	0.0000142	0.000000201
0.00000942	0.0000595	0.00000408
0	0.00000164	0
0.0000252	0.000105333	0.00000774
0	0.0000033	6.69E-08
0.000000159	0.000000692	0
0.000000219	0.000000822	0
0	0.0739933	0.000764707
0.00000742	0.000102414	0.0000255
0.000000109	0.000000682	0
0	0.00000133	0
0.000000432	0.0000327	0.00000223
0.00000113	0.00000293	0.000000142
0.00000196	0.0000581	0.0000159
0	0.000000575	0
0	0.000000535	0
0.00000353	0.000096	0.00000202
0.0000222	0.000152065	0.0000125
0	0.000000498	0
0.00000154	0.0000194	0.00000274
0.0000033	0.0000577	0.0000211
0	0.00000679	0
0.0000012	0.0000155	0.00000213
0.00000149	0.00000916	0
0.00000654	0.0000943	0.0000188
0	0.000000645	0
0.0000168	0.000144549	0.00000578
0.000000181	0.000000617	0
0.000000219	0.0000125	0.00000112
0	0.000000899	0
0.0000165	0.000180853	0.0000141
0	0.000000642	0
0.00000474	0.0000419	0.00000101
0	0.0154167	0.0000819
0.000000223	0.0000164	0.000000264
0.000000958	0.0000048	0.000000376
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0.0000163	0.000158334	0.00000604
0.0000118	0.000115948	0.00000614
0.000000157	0.000000054	0
0.0000033	0.000015	0.00000274
0.000000335	0.0000119	0.000000268
0	0.0000182	7.94E-08
0	0.0000322	0.000000196
0	0.0000435	0.000000254
0.0000184	0.000165656	0.00000386



0.0000142	0.000148821	0.00000686
0	0.0000396	0.000000213
0	0.0000412	0.000000259
0	0.0000778	0.000000418
0	0.0000436	0.000000223
0.0000146	0.000156137	0.00000633
0	0.0000726	0.000000399
0	0.000038	0.000000209
0	0.000000793	0
0	0.0000613	0.00000023
0	0.000000549	0
0	0.00000584	0
0	0.0000601	0.000000224
0	0.0000138	0
0	0.0000419	0.000000217
0	0.0000785	0.000000374
0	0.0000366	0.000000149
0	0.0000433	0.00000022
0.00000112	0.00000218	0.000000039
0	0.0000265	9.97E-08
0	0.0000377	0.000000178
0	0.0000696	0.000000277
0	0.0000112	0
0.00000104	0.00000726	0.000000683
0	0.0000645	0.000000262
0	0.0000834	0.000000312
0	0.0000351	0.000000187
0	0.0000875	0.000000372
0.00000529	0.000209822	0
0	0.0000419	0.000000155
0	0.0000711	0.000000249
0	0.000114208	0.000000399
0	0.000114208	0.000000399
0	0.0000979	0.000000316
0	0.0000907	0.000000275
0	0.0000984	0.000000336
0	0.0000338	0.000000158
0	0.0000338	0.000000158
0	0.0000769	0.000000283
0.00000095	0.00000862	0.000000822
0	0.0000819	0.000000273
0	0.0000704	0.000000226
0	0.0000575	0.000000184
0	0.0000602	0.000000196
0	0.0000602	0.000000196
0	0.0000984	0.000000305
0	0.0000703	0.000000297

0	0.0000347	0.000000138
0	0.0000636	0.000000199
0.000000977	0.00000872	0.000000695
0	0.000114208	0.000000299
0.00000066	0.00000587	0.000000051
0	0.000058	0.000000142
0	0.0000676	0.000000208
0.000000837	0.00000693	0.000000662
0	0.0000488	0.000000152
0	0.0000488	0.000000152
0.000000105	0.00000136	0.000000107
0.000000745	0.00000793	0.000000689
0.000000745	0.00000793	0.000000689
0	0.000033	9.25E-08
0	0.000033	9.25E-08
0	0.0000366	0.000000011
0	0.0000624	0.000000183
0	0.0000554	0.000000011
0	0.0000624	0.000000183
0	0.0000649	0.000000278
0	0.0000618	0.000000146
0	0.000053	0.000000101
0	0.0000478	0.000000131
0	0.0000513	0.000000114
0	0.0000338	0.000000117
0.00000134	0.000014	0.000000857
0	0.0000572	0.000000014
0	0.000028	0.000000122
0.00000109	0.00000972	0.000000758
0	0.000052	0.000000115
0.00000012	0.0000108	0
0.00000103	0.0000103	0.000000724
0.000000884	0.00000867	0.000000075
0	0.0000667	0.000000099
0	0.0000667	0.000000099
0.00111625	0.0140039	0.000845115
0	0.0000272	0.000000068
0.000000994	0.0000104	0.000000721
0	0.0000468	0.000000121
0	0.00000617	0
0.000000712	0.00000858	0.000000693
0	0.000051	8.87E-08
0.00000229	0.000132055	0
0.000000881	0.0000103	0.000000703
0	0.0000278	6.88E-08
0	0.0000278	6.88E-08
0	0.0000408	0.000000405

0	0.0000798	0.000000145
0.000000759	0.00000956	0.000000604
0.000000616	0.0000179	0.000000586
0	0.0000284	8.78E-08
0.000000839	0.00000868	0.00000046
0	0.0000269	8.21E-08
0	0.0000269	8.21E-08
0.000000698	0.00000823	0.000000571
0.00000065	0.00000744	0.000000349
0.000000707	0.00000674	0.000000482
0	0.00000467	0
0	0.0000303	4.85E-08
0.000000604	0.000024	0.000000349
0	0.0000663	0.000000144
0.00000061	0.00000713	0.000000373
0.000000521	0.00000711	0.000000441
0.000000521	0.00000711	0.000000441
0	0.000042	2.99E-08
0.00000106	0.0000962	0.000000569
0	0.0000584	0.00000006
0.000000809	0.0000673	0.000000704
0.00000046	0.0000214	0.000000344
0	0.0000587	8.08E-08
0.000000177	0.0000263	4.44E-08
0	0.0000256	0
0.000000271	0.0000119	0.000000261
0.00000364	0.000100627	0.00000254
0.000000934	0.000113299	0.00000114
0.000000224	0.0000838	0
0.000011	0.0000493	0.00000021
0.00000787	0.0000436	0.000000198
0.00000326	0.0000302	0.000000138
0.00341906	0.0185837	0.0000826
0.00000353	0.000032	0.000000144
0.000000472	0.0000602	0.00000274
0.00000904	0.0000399	0.00000016
0.00000364	0.0000305	0.000000131
0.00000352	0.000109968	0.00000676
0.00000176	0.0000543	0.00000074
0	0.0000152	0.000000325
0.00000337	0.0000239	0.000000066
0.00000969	0.0000495	0.000000149
0.0000107	0.0000521	0.000000151
0.0000107	0.0000521	0.000000151
0	0.0000122	0.000000227
0	0.000024	0.000000409
0	0.0000168	0.000000245

0.000000707	0.0000162	7.11E-08
0	0.0000112	0.000000128
0	0.0000181	0.000000132

UNC-patient_Post-FMT1	UNC-patient_Post-FMT2	UNC-patient_Post-FMT3
0.0000154	0.00000535	0.000244369
0.0000124	0.00000508	0.000146467
0.0000149	0.00000541	0.00021776
0.0000149	0.00000541	0.00021776
0.0000143	0.00000499	0.000203101
0.0000111	0.00000384	0.000179464
0.0000129	0.00000493	0.000206115
0.0000138	0.00000498	0.00019299
0.000113447	0.000168306	0.0000964
0.0000145	0.000005	0.000199076
0.0000142	0.00000479	0.000189261
0.0000113	0.00000368	0.000219994
0.0000126	0.00000409	0.000180765
0.0000148	0.00000513	0.000194698
0.00012334	0.000179595	0.000110925
0.00876931	0.00310579	0.139375
0.0000165	0.00000567	0.00021974
0.000154234	0.000229607	0.0001463
0.000121739	0.000177675	0.000108742
0.000154048	0.000226173	0.000139357
0.0000151	0.0000051	0.000193322
0.000121622	0.000177043	0.000106699
0.000121725	0.000177217	0.000106813
0.0000201	0.00000725	0.000281167
0.0000129	0.00000454	0.000194953
0.0000178	0.00000603	0.000231162
0.000122501	0.000177042	0.00010924
0.000122501	0.000177042	0.00010924
0.0000132	0.00000434	0.000174173
0.0000131	0.00000453	0.000194443
0.0000184	0.0000063	0.000240251
0.0000164	0.00000671	0.000196067
0.0000164	0.00000671	0.000196067
0.0000132	0.00000466	0.000196719
0.000012	0.00000421	0.000183398
0.000116656	0.000167588	0.000103433
0.0000147	0.00000499	0.000245993
0.0000168	0.00000564	0.000216829
0.0000168	0.00000564	0.000216829
0.0000155	0.00000494	0.000189876
0.0000155	0.00000494	0.000189876
0.000125573	0.000190051	0.00011316
0.0000282	0.0000106	0.0000208
0.0000603	0.000028	0.000048
0.00011192	0.000166109	0.000103105
0.000135038	0.000195275	0.000117644

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0.000125029	0.000177155	0.0001104
0.0000603	0.0000272	0.0000462
0.0000335	0.0000131	0.0000252
0.000012	0.00000386	0.000172358
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0.0000444	0.0000194	0.0000348
0.000127029	0.000192179	0.000121075
0.0000722	0.0000333	0.0000518
0.0000379	0.0000165	0.000029
0.0000565	0.0000269	0.0000443
0.000154048	0.000226173	0.000139357
0.000154048	0.000226173	0.000139357
0.0000912	0.0000418	0.0000698
0.0000787	0.0000372	0.0000607
0.000066	0.0000304	0.0000516
0.0000507	0.0000238	0.0000399
0.0000441	0.0000194	0.0000333
0.000127029	0.000192179	0.000121075
0.0000412	0.0000181	0.0000318
0.0000536	0.0000251	0.0000426
0.0000318	0.0000165	0.0000279
0.0000318	0.0000165	0.0000279
0.000041	0.0000195	0.0000324
0.0000647	0.0000302	0.000000058
0.0000647	0.0000302	0.000000058
0.0000751	0.0000373	0.0000623
0.0000509	0.0000248	0.0000406
0.0000512	0.0000236	0.0000385
0.000122708	0.000057	0.0000922
0.0000503	0.0000229	0.0000382
0.0000471	0.0000203	0.0000348
0.0000607	0.0000271	0.0000475
0.0000546	0.0000246	0.0000432
0.0000397	0.0000181	0.00003
0.0000872	0.0000431	0.0000663
0.14884	0.220364	0.142569
0.0000527	0.0000221	0.00004
0.0000627	0.0000283	0.0000476
0.0000461	0.0000226	0.0000376
0.0000589	0.0000267	0.0000447
0.0000222	0.0000099	0.0000167
0.000057	0.0000247	0.0000417
0.0000578	0.0000249	0.0000429
0.0000618	0.0000289	0.0000479
0.000031	0.0000163	0.0000274
0.000031	0.0000163	0.0000274

0.0000476	0.0000235	0.0000381
0.000048	0.0000221	0.0000378
0.0000612	0.0000339	0.0000515
0.00007	0.0000347	0.0000559
0.0000617	0.0000283	0.0000477
0.0000651	0.0000294	0.0000496
0.0000459	0.0000225	0.0000374
0.0000459	0.0000225	0.0000374
0.0000459	0.0000225	0.0000374
0.0000628	0.0000276	0.000047
0.0000667	0.0000293	0.00005
0.0000614	0.0000279	0.0000476
0.0000708	0.0000367	0.0000585
0.0000619	0.0000305	0.0000505
0.000057	0.0000263	0.000045
0.0000655	0.0000296	0.0000497
0.0000399	0.0000244	0.0000364
0.00000664	0.00000339	0.00000567
0.00000841	0.00000429	0.00000718
0.0000475	0.0000222	0.0000375
0.00000969	0.00000494	0.00000827
0.0000393	0.0000244	0.0000362
0.0000561	0.0000247	0.0000426
0.0000544	0.0000256	0.0000434
0.0000443	0.0000207	0.0000345
0.0000443	0.0000207	0.0000345
0.0000448	0.000022	0.0000365
0.0000448	0.000022	0.0000365
0.0000448	0.000022	0.0000365
0.0000448	0.000022	0.0000365
0.0000557	0.0000285	0.0000453
0.0000561	0.0000286	0.0000457
0.0000728	0.0000368	0.000061
0.000101174	0.0000453	0.0000757
0.0000507	0.0000241	0.0000406
0.0000507	0.0000241	0.0000406
0.0000558	0.0000282	0.0000449
0.0000146	0.00001	0.000000935
0.0000779	0.0000382	0.0000638
0.0000434	0.0000208	0.0000365
0.0000579	0.000026	0.0000436
0.0000518	0.0000232	0.0000398
0.0000796	0.0000385	0.0000615
0.0000498	0.0000234	0.0000436
0.0000487	0.0000209	0.0000371
0.0000421	0.0000176	0.00003
0.0000775	0.0000431	0.0000688

0.0000775	0.0000431	0.0000688
0.0000491	0.0000219	0.0000376
0.0000792	0.0000401	0.0000624
0.0000478	0.0000213	0.0000358
0.0000635	0.0000282	0.000047
0.0000476	0.0000212	0.0000363
0.00021564	0.0000992	0.000166254
0.0000593	0.0000322	0.0000503
0.000101862	0.0000481	0.0000781
0.0000444	0.0000229	0.0000377
0.0000597	0.000027	0.0000458
0.0000862	0.000043	0.0000692
0.000052	0.0000265	0.0000418
0.0000594	0.0000298	0.000047
0.0000678	0.0000313	0.0000509
0.0000565	0.0000268	0.0000436
0.000058	0.000028	0.0000456
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0.0000497	0.0000243	0.0000397
0.0000497	0.0000243	0.0000397
0.0000497	0.0000243	0.0000397
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0.000100691	0.000051	0.000083
0.0000502	0.0000252	0.0000412
0.0000503	0.0000224	0.0000389
0.0000661	0.0000297	0.0000499
0.0000169	0.00000882	0.0000147
0.0000355	0.0000173	0.0000272
0.0000371	0.0000167	0.00003
0.0000363	0.0000177	0.0000293
0.0000779	0.0000396	0.0000641
0.0000468	0.0000209	0.0000361
0.0000421	0.0000226	0.0000366
0.0000961	0.0000451	0.0000733
0.000101862	0.0000481	0.0000781
0.000072	0.0000371	0.0000622
0.000072	0.0000334	0.0000562
0.000083	0.0000431	0.0000705
0.0000424	0.0000193	0.000034
0.0000699	0.0000319	0.0000555
0.000114563	0.0000535	0.0000911
0.00000417	0.0000019	0.00000322
0.0000428	0.0000214	0.0000348
0.0000454	0.0000196	0.0000335



0.0000468	0.0000208	0.0000352
0.0000451	0.0000222	0.0000367
0.0000674	0.0000308	0.0000523
0.0000407	0.0000182	0.0000312
0.0000525	0.0000245	0.0000427
0.00000677	0.00000309	0.00000523
0.0000626	0.0000277	0.0000469
0.0000759	0.0000036	0.0000611
0.00000804	0.00000367	0.00000621
0.0000328	0.0000151	0.0000273
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0.0000869	0.0000428	0.0000704
0.0000656	0.0000321	0.0000501
0.0000669	0.0000032	0.0000502
0.0000371	0.0000167	0.0000297
0.0000254	0.0000012	0.0000192
0.0000784	0.0000333	0.0000591
0.000033	0.0000154	0.0000269
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0.000033	0.0000154	0.0000265
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0.0000348	0.0000165	0.0000277
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0.0000344	0.0000162	0.0000267
0.0000578	0.0000256	0.0000436
0.0000426	0.0000182	0.0000339
0.0000407	0.0000171	0.0000306
0.0000506	0.0000224	0.0000398
0.0000506	0.0000224	0.0000398
0.0000678	0.0000295	0.0000052
0.0000678	0.0000295	0.0000052
0.0000143	0.00000661	0.0000111
0.0000215	0.0000109	0.0000171
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0.0000285	0.0000105	0.0000454
0	0.000000283	0.0000176
0.0000784	0.0000038	0.0000631
0.0000502	0.0000252	0.0000406
0.0000331	0.0000156	0.0000258
0.155382	0.256584	0.105269
0.0000468	0.0000221	0.0000454
0.000047	0.0000239	0.0000419
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0.0000194	0.00000918	0.0000149
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0	0.000000325	0.0000235

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0.0000645	0.0000323	0.0000512
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0.0000353	0.0000156	0.0000286
0.0000586	0.000032	0.0000499
0	0.000000321	0.0000178
0.0000586	0.0000285	0.0000485
0.0000387	0.0000169	0.0000297
0.0000553	0.0000268	0.0000458
0	0.000000321	0.0000174
0	0.000000296	0.0000178
0	0.000000153	0.0000143
0.0000442	0.0000335	0.0000389
0.0000609	0.0000287	0.0000472
0.0000952	0.0000472	0.0000978
0.0000575	0.0000279	0.0000452
0	0.000000362	0.0000185
0.0000204	0.00000961	0.0000157
0	0.000000131	0.0000129
0	0.000000305	0.0000228
0	0.000000186	0.0000156
0.0000255	0.0000123	0.0000187
0	0.000000575	0.0000236
0.0000195	0.00000977	0.0000158
0.000036	0.000016	0.0000281
0	0.00107825	0.0145849
0	0.000000374	0.0000164
0	0.00000017	0.00000418
0.0000246	0.0000118	0.0000188
0	0.000000168	0.00000452
0	6.13E-08	0.00000502
0	0.000000624	0.0000243
0	0.000000624	0.0000243
0	7.05E-08	0.000069
0.0000454	0.0000202	0.0000674
0	0.000000164	0.00000531
0	0.000000471	0.000019
0	0.000000102	0.00000445
0.000248637	0.000358303	0.0000827
0	0.000000319	0.0000166
0.0000049	0.00000227	0.00000429
0	0.00000026	0.0000173
0	0.000000299	0.0000193
0	0.000000299	0.0000193
0.0000705	0.0000345	0.0000748
0.0000229	0.000011	0.0000166
0.0000229	0.000011	0.0000166

0	0.00000326	0.0000186
0.0000215	0.00000814	0.00000371
0	0.00000309	0.000018
0.0000877	0.000054	0.0000746
0	0.00000325	0.0000178
0.0000277	0.0000131	0.0000216
0	0.00000328	0.0000171
0	0.00000332	0.0000187
0	0.00000183	0.00000535
0	0.00000298	0.0000185
0.000118488	0.0000542	0.0000782
0	0.00000313	0.0000183
0	0.00000147	0.00000489
0	0.00000322	0.0000186
0.0000245	0.0000124	0.0000198
0	0.00000104	0.00000402
0	0.00000325	0.0000183
0.0001881	0.000273539	0.000135893
0	0.00000179	0.00000438
0.000051	0.000023	0.000042
0.000051	0.000023	0.000042
0.0714279	0.106044	0.0995278
0	0.00000494	0.0000201
0.00000855	0.00000463	0.00000739
0	8.92E-08	0.00000423
0.0000814	0.0000388	0.0000944
0.000140657	0.0000819	0.000120211
0	0.00000042	0.0000249
0.0168554	0.0328678	0
0.000103909	0.0000546	0.000111573
0.0000575	0.0000302	0.000107456
0	0.000000224	0.00000625
0.000107534	0.000059	0.000126912
0.0000443	0.0000213	0.0000805
0.000114119	0.0000664	0.000121589
0.000114119	0.0000664	0.000121589
0.000127064	0.0000846	0.0000931
0.00000868	0.00000473	0.00000754
0.0000801	0.0000397	0.0000775
0	0.000385014	0.00349716
0.0000259	0.0000127	0.0000222
0.000051	0.000025	0.0000412
0.00000158	0.00000257	0.00000279
0	0.000000211	0.0000049
0.0000608	0.0000325	0.0000525
0.0000404	0.0000363	0.0000849
0.0000471	0.0000208	0.0000354

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0.000143292	0.0000923	0.000165014
0.000143292	0.0000923	0.000165014
0.0000226	0.0000112	0.000019
0.0000226	0.0000112	0.000019
0.0001843	0.000210401	0.000178863
0	9.19E-08	0.00000537
0	0.000000104	0.00000486
0.000122969	0.0001891	0.000197093
0.00000461	0.00000251	0.00000401
0	0.000000212	0.00000492
0	0.000000212	0.00000492
0.000146839	0.000222071	0.000151344
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0.000123035	0.000177197	0.000181992
0.000120812	0.0000737	0.000143513
0.00000159	0.00000261	0.00000281
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0.000107788	0.00015968	0.000163063
0.000136521	0.0000716	0.000126702
0.0000497	0.0000245	0.0000402
0.0000497	0.0000245	0.0000402
0.0000497	0.0000245	0.0000402
0.0000497	0.0000245	0.0000402
0	0.000000115	0.00000631
0	0.000000135	0.00000528
0.000129485	0.000198766	0.000200631
0	0.00000014	0.00000476
0.000146677	0.000238835	0.0000986
0.0000197	0.00000831	0.0000149
0.000126774	0.000192747	0.000194275
0.000023	0.0000446	0.00000028
0.0000473	0.0000191	0.0000782
0.000116831	0.000062	0.000141533
0.000150261	0.000101561	0.000191479
0.000122654	0.000187137	0.000188278
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0.000179519	0.000290649	0.000117335
0.000196414	0.000320239	0.000128584
0.00012709	0.000219964	0.000085
0.000127909	0.000217763	0.0000856
0.0000766	0.0000359	0.000214635
0.000199615	0.000327936	0.000132314
0.00011472	0.000192981	0.0000758
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0.000118338	0.000202685	0.0000775

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0.000140371	0.000239561	0.0000923
0.000164382	0.000266523	0.000109996
0.000128691	0.000222061	0.0000858
0.000198804	0.00032305	0.000130009
0.000125702	0.000218508	0.0000836
0.0000959	0.000049	0.000318221
0.0000959	0.000049	0.000318221
0.000152594	0.000249112	0.000102918
0.000196898	0.000324051	0.000128845
0.000127254	0.000191888	0.000197206
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0.000142698	0.000238037	0.0000952
0.000182088	0.000293786	0.000120832
0.000176389	0.000292116	0.000112956
0.000177783	0.000296592	0.000114472
0.000198643	0.000329408	0.000132821
0.000132325	0.000226216	0.0000872
0.000196764	0.000321504	0.000130457
0.000132942	0.000226113	0.0000875
0.000179287	0.000297804	0.000114472
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2.76E-08	9.14E-08	0.000000716
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0.000213545	0.000349554	0.000142808
0.000213545	0.000349554	0.000142808
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0.0000585	0.00010384	0.000000108
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0.000135203	0.000226468	0.0000899
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0.000208398	0.000342772	0.000134581
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0.000152043	0.00014812	0.000128618
0.000163602	0.000266338	0.000106685
0.000105022	0.000195268	0
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0.0000548	0.0000241	0.0000401
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0	0.000000158	0.0000561
0.0000257	0.0000148	0.0000964
0.000000295	0.000000307	0.00000017
0	0.00000187	0.000000271
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0.000000392	0.0000015	0.00000111
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0.0000333	0.0000166	0.000026
0.0000237	0.0000116	0.0000184
0.000128663	0.000129388	0.000156764
0.000000223	0.000000317	0.000000213
0.000000388	0.000000762	0.000000684
0.000000394	0.00000084	0.000000681
0.000000385	0.000000403	0.000000215
0	4.69E-08	0
0.000000299	0.00000111	0.000000893
0.000000745	0.00000127	0.000000885
0.0000309	0.0000162	0.0000247
0.00000105	0.00000159	0.00000105
0.000000247	0.000000308	0.000000246
0.000000247	0.000000308	0.000000246
0.000000375	0.000000837	0.000000861
0.00016143	0.00013936	0.000170471
0.000000283	0.000000273	0.000000298
0.000000207	0.000000411	0.000000204
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0.0000353	0.0000208	0.000124842
0.0000781	0.000051	0.0000552
0.000120341	0.0000642	0.000146837
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0.00000547	0.00001	0
0.0000539	0.0000268	0.0000433
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0	0	0

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0.0000466	0.0000231	0.0000375
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0.000163609	0.000113777	0.000282701
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0.000089	0.0000419	0.000064
0.0000319	0.0000135	0.0000228
0.0000588	0.0000268	0.0000464
0	7.99E-08	0.0000691
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0.0000292	0.0000123	0.0000208
0.0000837	0.0000373	0.0000916
0	0.000000717	0.000000921
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0	0	0
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0	8.88E-08	0.0000566
0	4.18E-08	0
0	9.39E-08	0.0000605
0	0	0
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0	0.000000154	0.000067
0	0.000000162	0.0000588
0	0	0
0	0.000000403	0.000000359
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0	0.000000327	0.000000164
0	9.58E-08	0.0000572

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0	0.000000259	0.000000256
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0	0.00000127	0.000000297
0	0	0.0000538
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0	0.00000063	0.00000032
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0	0.000000141	0.0000543
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0	0.000000339	0.000000387
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0	0.0000605	0.0365693
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0	8.46E-08	0
0	0.00000022	0.000000155



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0	0.000000368	0.00000037
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0	0.000000124	0
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0	7.14E-08	0
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0	7.27E-08	0
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0	0	9.07E-08
0	6.46E-08	0
0	6.46E-08	0
0	0	6.06E-08
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0	0.000000973	0
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0.00000115	0.000000294	0.000000907
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0.000000243	0.000000643	0.00000251
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0.0000269	0.0000448	0.00000798

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0.00000454	0.00000352	0.0000038
0.00000808	0.00000445	0.00000174
0	0	0
0	0	0
0	0	0
0	0	0
0.0000419	0.0000199	0.0000864
0	0	0
0.000000172	0.000000139	0.000000256
0	0	0
0	0	0
0	0	0

0.0000547	0.000026	0.0000472
0.000000743	0	0.00000132
0.000003	0.00000366	0.00000541
0	0	0
0	0	0
0.00010936	0.0000738	0.000017
0.0000697	0.0000324	0.0000517
0	0	0
0	0	0
0	0	0
0.00000121	0.000000362	0.00000151
0.0000115	0.00000171	0.0000112
0.00000786	0.0000025	0
0	0	0
0	0	0
0.000000242	0.000000221	0.000000237
0.00000675	0.00000902	0.00000491
0	0	0
0.0000582	0.0000257	0.0000444
0.000027	0.0000389	0.00000578
0	0	0
0.000000122	0	0
0	0	0
0.00000508	0.00000479	0.00000464
0	0	0
0.00000193	0	0
0.000008	0.00000562	0.0000089
0.00000279	0.00000278	0.00000245
0	0	0
0.00000496	0.00000507	0.00000341
0	0	0
0.00000563	0.00000371	0.00000376
0.00000284	0.00000173	0.00000356
0.0000179	0.0000311	0.00000485
0.0000143	0.00000463	0.000000507
3.91E-08	0.000000117	0
0	0	0
0	0	0
0	0	0
0.000000245	0.000000795	0.00000148
0	0	0
0.00000785	0.00000201	0.00000221
0	0	0
0	0	0
0.000017	0.00000986	0.00000547
0	0	0
0	0	0



0.0000892	0.0000375	0.0000572
0.00000357	0.00000174	0.000016
0.0000381	0.0000246	0.00000639
0	0	0
0	0	0
0.0000175	0.0000235	0.00000578
0.00000342	0.00000204	0.00000417
0	0	0
0.00000148	0.000000278	0.00000526
0.0000628	0.00001	0.0000101
0.000000177	0.000000172	0
0.0000089	0.0000072	0.00000457
0	0	0.000000146
0.00000361	0.00000234	0.00000366
0	0	0
0	0	0
0.0000726	0.0000332	0.000103814
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0.0000031	0.00000282	0.00000258
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0	0	0
0	0	0
0.000000738	0.00000107	0.00000163
0.000000273	0.000000922	0.00000119
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0.000000222	0.0000004	0.000000304
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0	0	0
0.0000283	0.0000162	0.00000656
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0	0	0
0	0	0
0	0	0
0.00000499	0.00000132	0.00000206
0	0	0
0.00000177	0.000000454	0.00000041
0.00000244	0.00000156	0.00000125
0	0	0
0.000000219	0.000000349	0.000000314
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0.0000328	0.0000289	0.00000448
0	0	0

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0.000000218	0.000000268	0.000000337
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0	0	0
0.000000676	0.000000801	0.00000024
0.000000192	0.000000342	0.000000255
0.000000191	0.000000351	0.000000268
0.000000354	0.000000324	0.000000205
0.000000192	0.000000339	0.000000249
0.000000156	0.00000026	0.000000213
0	0	0
0.000000331	0.000000166	0.000000998
0	0	0
0.000000159	0.000000118	0.00000007
0	0	0
0.000000195	0.000000381	0.000000274
0.000000201	5.61E-08	0.000000112
0.000648079	0.0000959	0.000092
0	0.000000564	0
0	0.000000564	0
0	0	0
0	0	0
0	0	0
0.000000208	0.000000276	0.000000155
0.000000208	0.000000276	0.000000155
9.51E-08	2.91E-08	0.000000139
0	0	0
0.000000167	0.000000316	0.000000195
0.000000355	0.000000323	0.000000147
0	0	0
0.00000014	8.13E-08	0.000000122
0.00000014	8.13E-08	0.000000122
4.39E-08	6.62E-08	9.65E-08
0	0.000000365	0
0.000000124	0.000000274	0.000000283
0.000000164	0.000000074	8.81E-08
0.000000846	0.000000296	0.000000957
0	0	0
0	0	0
0	0.000000674	0
0.000000179	5.73E-08	0.000000117
0.000000184	0.000000165	0.000000225
0	0	0
0.000000186	5.86E-08	0.00000001
0.000000182	0.000000133	0.000000123
0.000000513	0.000000426	0.000000117

0.000000182	6.13E-08	0.00000012
0.000509391	0	0
0.000000206	0.000000352	0.000000251
0.000000232	7.48E-08	0.000000124
0.000000232	7.48E-08	0.000000124
0	0	0
0.000000163	0.000000105	0.000000114
0.000000326	0.000000371	0.000000412
0	0.000000464	0
0	0.000000464	0
0.000000201	9.62E-08	0.000000145
0.000000129	0.000000212	0.000000115
0.00000184	0.00000135	0.00000102
0	0	0
0	0.000000583	0
0.000000124	6.63E-08	7.02E-08
0	0	0
0.000000141	0	8.01E-08
0.00000265	0.00000193	0.00000278
0.000000125	0	0
0.00000171	0.00000113	0.00000103
0	0	0
0.000000322	0	0
0	0	0
0	0	0
0.000000411	0.000000588	0.00000177
0.00000178	0.00000244	0.00000121
0.000000109	5.53E-08	8.21E-08
0.0000241	0.0000182	0.00000532
0.0000182	0.0000242	0.00000673
0.00000386	0.00000304	0.00000484
0.000128222	0.000112074	0.00012792
0	5.07E-08	0.000000106
0	0	0
0	0	0
0	0	0
0.000000108	6.94E-08	0.000000086
0.000000121	7.29E-08	0.000000102
0.00000014	0	3.82E-08
0	0	0
0	0	0
0	0	0
0	0	0
0.000000253	3.14E-08	0.000000154
0.000000118	4.69E-08	0.000000106
0.000000194	0	0
0.0000252	0.0000188	0.00000628

0.00000312	0.00000201	0.00000599
0.000000357	0.000000145	0
0.00000388	0.00000311	0.0000134
9.08E-08	0	5.55E-08
0	0	0
0	0	0
0	0.000000165	0
0	0	0
0.000000245	0	0
0	0	0
0.0000231	0.0000163	0.00000536
0	0	0
0.000000158	0	0
0	0	0
0.000000221	0	0
0.000000206	0	0
0.000000106	0	0.000000086
0.0000141	0.0000113	0.0000136
0.000000249	0.000000146	0.000000567
0	0	0
0	0	0
0.0000296	0.0000215	0.0000109
0.0000296	0.0000215	0.0000109
0	0	0
0.0000103	0.0000118	0.00000725
0	0	0
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0	0.000000232	0
0.000000145	0	0
0	0.00000023	0
0.000000213	0	0
0.000000323	0.00000104	0.000000849
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0.0000002	0	0
0.00000438	0.00000553	0.00000544
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0.000000122	0	0
0.000000196	0	0
0	0	0
0	0.000000218	0
0.000000199	0	0
0.00000187	0.00000804	0.00000185
0.0000172	0.00000625	0.00000706
0.0000172	0.00000624	0.00000706
0.00000178	0.00000102	0.0000031
0	0.000177032	0
0.000000166	0	0

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0	0.000000332	0
0	0.000000267	0
0.000000969	0.000001	0.000000963
0	0.000000254	0
0	0.000000254	0
0	0	0
0.000000179	0	0
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0.000000162	0	0
0.000000019	0	0
0	0	0
0	0	0
0	0	0
0	0.000000185	0
0	0	0
0.000000151	0	0
0	0	0
0	9.11E-08	0
0	0	0
0	0	0
0	0.000000196	0
0.000000195	0.000000412	0.000000163
0	0	0
0	0	0
0	0	0
0	0.000000186	0
0	0	0
3.06E-08	0.000000297	0.000000167
0	0.000000216	0
0.0000147	0.00000432	0.0000086
0.0000147	0.00000432	0.0000086
0	0	0
0.0000154	0.00000459	0.00000847
0	0	0
0	0	0
9.07E-08	0	0
0	0.000000159	0
0	8.99E-08	0
0	0.000000237	0
0	0	0
0	0	0
0	0.000000139	0
0	0	0
0	0	0
0.000000102	0	0
0	0	0

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0.000000112	0	0
0.00000344	0.00000327	0.00000369
0	0	0
0.00000607	0.00000268	0.00000336
0	0	0
0	0.000000121	0
0	0.000000188	0
0.000683203	0	0
0.00001	0.00000992	0.00000394
0	0.000000151	0
0	0	0
0.00000107	0.00000168	0.00000594
0	0	0
0.000000493	0.000000352	0.00000319
0	0.000000157	0
0	0.000000147	0
0.00000762	0.00000304	0.00000839
0.0000127	0.0000072	0.00000455
0	0.000000129	0
0.000000616	0.000000604	0.000000717
0.0000014	0.000000394	0.000000418
0.000000101	0	0
0.000000479	0.00000047	0.000000557
0.000000135	0	0
0.00000612	0.00000797	0.00000345
0	0.00000016	0
0.00000754	0.00000429	0.0000078
0	9.33E-08	0
0.000000585	0.000000987	0.000000715
0	0	0
0.0000203	0.00000897	0.0000159
0	0.000000155	0
0.00000171	0.000000715	0.00000647
0.0000978	0	0
0.0000146	0.00000453	0.000000137
5.36E-08	0.000000209	0.000000182
0	0.00000017	0
0.0000114	0.00000273	0.00000471
0.00000406	0.00000335	0.0000121
0	5.76E-08	0
0.00000115	0.000000394	0.000000281
0.00000176	0.000000211	0.00000131
9.51E-08	0	0
8.08E-08	0	0
0.000000119	0	0
0.0000137	0.00000328	0.00000314

0.00000555	0.00000248	0.00000532
0.000000111	0	0
7.22E-08	0	0
0.000000195	0	0
0.000000114	0	0
0.00000569	0.00000234	0.0000052
0.000000155	0	0
7.84E-08	0	0
0	0.000000111	0
0.000000227	0	0
0	6.61E-08	0
0.00000018	0.000000143	0.0000013
0.000000215	0	0
0.000000101	0	0
8.47E-08	0	0
0.000000191	0	0
0.000000106	0	0
7.89E-08	0	0
0	0	0
8.12E-08	0	0
7.66E-08	0	0
0.000000181	0	0
7.36E-08	0	0
0.000000307	0	0.000000187
0.000000151	0	0
0.000000221	0	0
3.77E-08	0	0
0.000000186	0	0
0.0000532	0.000022	0.0000107
9.85E-08	0	0
0.000000179	0	0
0.000000285	0	0
0.000000285	0	0
0.000000267	0	0
0.000000245	0	0
0.000000216	0	0
3.16E-08	0	0
3.16E-08	0	0
0.000000144	0	0
0.000000223	0	9.06E-08
0.000000176	0	0
0.000000159	0	0
0.00000013	0	0
0.000000128	0	0
0.000000128	0	0
0.000000216	0	0
7.44E-08	0	0

4.37E-08	0	0
0.000000133	0	0
0.000000257	0	0.000000136
0.000000285	0	0
0.000000318	0	0.000000174
0.000000152	0	0
0.000000129	0	0
0.000000262	0	0.000000104
8.97E-08	0	0
8.97E-08	0	0
0	0	0
0.000000287	0	0.000000161
0.000000287	0	0.000000161
6.96E-08	0	0
6.96E-08	0	0
6.91E-08	0	0
0.000000121	0	0
0.000000155	0	0
0.000000116	0	0
2.13E-08	0	0
0.000000138	0	0
0.000000143	0	0
8.71E-08	0	0
0.000000119	0	0
3.33E-08	0	0
0.000000365	0	0.000000219
0.000000111	0	0
0	0	0
0.000000204	0	0.000000194
0.000000106	0	0
4.57E-08	0	0
0.000000187	0	0.000000186
0.000000168	0	0.000000179
0.00000016	0	0
0.00000016	0	0
0.000556614	0	0.000233756
3.69E-08	0	0
0.00000017	0	0.000000169
0.000000056	0	0
0.000000457	0.000000189	0.000000521
0.00000029	0	0.000000217
0.000000101	0	0
0.0000239	0.00000922	0.00000465
0.000000232	0	0.00000018
3.11E-08	0	0
3.11E-08	0	0
0.00000171	0.00000244	0.00000437



0.000000133	0	0
0.000000207	0	0.000000174
0.000000445	0.00000046	0.000001
0	0	0
0.000000188	0	0.000000174
0	0	0
0	0	0
0.00000016	0	0.000000163
0.000000325	0	0.000000126
6.08E-08	0	0.000000131
0.000000134	0	0.000000172
3.25E-08	0	0
0.00000155	0.00000121	0.000000474
3.12E-08	0	0
0.000000246	0	0.000000106
0.000000136	0	0.000000151
0.000000136	0	0.000000151
7.09E-08	0	0
0.00000332	0.00000449	0.00000516
6.65E-08	0	0
5.37E-08	0.00000021	0.000000187
0.000000571	0.0000011	0.000000679
3.11E-08	0	0
0	0	0
3.33E-08	0	0
8.05E-08	0.000000231	0.000000847
0.00000199	0.00000122	0.000000627
0.00000118	0.00000611	0.00000115
0.0000158	0.00000483	0.000000135
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0.00000023	0.000000309	0.00000229
0	0	0
0	0	0
0.00000159	0.00000124	0.000000506
0.000000353	0.000000221	0.000000237
0.00000013	0.000000171	0.000000773
0	0	0
0	0	0
0	0	0
0	0	0
6.45E-08	0.000000217	0.000000587
0.000000338	0.000000317	0.00000193
9.45E-08	0.000000194	0.000000634

0	0	0
0	0.000000157	0.000000537
5.41E-08	0	0.00000019

Vanderbilt-patient_Pre-FMT	Vanderbilt-patient_Post-FMT2	Vanderbilt-donor_Donor
0.0000409	0.00013429	0.000000614
0.0000334	0.00010209	0.000000578
0.0000374	0.000125777	0.000000704
0.0000374	0.000125777	0.000000704
0.0000347	0.000115519	0.000000585
0.0000312	0.0000991	0.000000707
0.0000357	0.000114832	0.000000618
0.0000333	0.000110098	0.000000717
0.000178974	0.0000539	0.00000067
0.0000342	0.000113027	0.000000608
0.0000328	0.000110807	0.000000729
0.0000377	0.000124941	0.000000726
0.0000307	0.0000992	0.000000545
0.0000333	0.000112095	0.000000734
0.00020206	0.0000581	0.00000085
0.0255422	0.0816828	0.000480156
0.0000394	0.000126368	0.000000738
0.000255985	0.0000672	0.000000807
0.000200912	0.0000571	0.000000848
0.00025195	0.0000691	0.00000101
0.0000332	0.000113072	0.000000753
0.000197526	0.000056	0.000000886
0.000197615	0.000056	0.000000891
0.0000495	0.000159374	0.00000113
0.0000336	0.000106085	0.000000691
0.0000401	0.00013553	0.000000911
0.00020146	0.0000544	0.000000923
0.00020146	0.0000544	0.000000923
0.0000317	0.000100434	0.000000565
0.0000336	0.00010641	0.000000698
0.0000423	0.000140636	0.000000947
0.0000402	0.000133519	0.000000675
0.0000402	0.000133519	0.000000675
0.0000341	0.000107366	0.000000682
0.0000321	0.000102132	0.000000722
0.000199596	0.0000522	0.000000867
0.0000409	0.000132119	0.000000841
0.0000389	0.000124868	0.000000811
0.0000389	0.000124868	0.000000811
0.0000322	0.000113787	0.000000776
0.0000322	0.000113787	0.000000776
0.000206459	0.0000589	0.000000769
0.0000477	0.00000307	5.94E-08
0.0000486	0.00000784	0.000000215
0.000192473	0.0000484	0.000000856
0.000216503	0.0000584	0.000000909

0.0000436	0.00000485	0.000000107
0.000201687	0.0000588	0.000000992
0.0000506	0.000009	0.000000155
0.0000502	0.00000384	8.04E-08
0.0000304	0.0000955	0.000000691
0.0000153	0.00000274	5.11E-08
0.0000683	0.0000069	0.000000153
0.000223666	0.0000584	0.00000108
0.0000635	0.0000111	0.000000142
0.0000456	0.00000525	8.54E-08
0.0000415	0.00000863	0.000000105
0.00025195	0.0000691	0.00000129
0.00025195	0.0000691	0.00000129
0.0000447	0.0000115	0.000000153
0.0000681	0.00000942	0.000000259
0.000057	0.00000765	0.000000206
0.000042	0.00000783	0.000000179
0.0000308	0.00000701	0.000000147
0.000223666	0.0000584	0.00000115
0.0000365	0.00000443	0.000000118
0.0000339	0.00000659	0.000000197
0.00000674	0.00000443	5.94E-08
0.00000674	0.00000443	5.94E-08
0.0000466	0.0000061	0.000000188
0.0000274	0.000000833	7.61E-08
0.0000274	0.000000833	7.61E-08
0.0000402	0.00000705	0.000000181
0.0000363	0.00000879	0.00000019
0.0000373	0.00000724	0.000000153
0.0000882	0.0000157	0.000000585
0.0000323	0.0000055	0.000000157
0.0000323	0.00000643	0.0000002
0.0000423	0.00000688	0.000000146
0.0000459	0.00000847	0.000000203
0.0000326	0.00000493	0.000000157
0.0000772	0.00001	0.000000351
0.242038	0.0662314	0.0015175
0.0000495	0.0000063	0.000000155
0.0000502	0.0000057	0.000000279
0.000028	0.00000698	0.000000158
0.0000471	0.00000563	0.000000262
0.0000273	0.00000403	9.05E-08
0.0000461	0.00000659	0.000000241
0.0000451	0.00000658	0.000000203
0.0000511	0.00000745	0.000000216
0.00000674	0.00000416	5.47E-08
0.00000674	0.00000416	5.47E-08

0.000031	0.00000713	0.000000171
0.0000292	0.00000553	0.000000152
0.0000449	0.00000238	0.000000143
0.00005	0.0000082	0.000000197
0.0000511	0.00000613	0.000000285
0.0000518	0.00000602	0.000000294
0.0000285	0.00000701	0.000000157
0.0000285	0.00000701	0.000000157
0.0000285	0.00000701	0.000000157
0.0000491	0.00000739	0.00000023
0.0000529	0.00000771	0.000000242
0.0000511	0.00000627	0.000000271
0.0000585	0.0000102	0.00000026
0.0000468	0.00000736	0.000000207
0.0000473	0.00000687	0.000000228
0.0000513	0.00000619	0.000000292
0.0000506	0.00000988	0.000000146
0.00000746	0.000000599	3.24E-08
0.00000911	0.000000754	4.02E-08
0.0000234	0.00000596	0.000000148
0.0000105	0.000000872	4.64E-08
0.0000506	0.00000987	0.000000146
0.00004	0.00000653	0.000000177
0.000032	0.00000342	0.000000154
0.0000517	0.00000657	0.000000211
0.0000517	0.00000657	0.000000211
0.0000209	0.00000682	0.000000153
0.0000209	0.00000682	0.000000153
0.0000209	0.00000682	0.000000153
0.0000209	0.00000682	0.000000153
0.0000359	0.00000751	0.0000002
0.000036	0.00000759	0.000000199
0.0000522	0.00000883	0.000000248
0.0000728	0.0000107	0.000000375
0.0000198	0.00000638	0.000000183
0.0000198	0.00000638	0.000000183
0.0000334	0.00000743	0.000000201
0.00000154	0.000018	0.000000289
0.0000755	0.0000125	0.000000373
0.000037	0.00000534	0.000000182
0.0000511	0.00000736	0.000000254
0.0000274	0.00000633	0.000000136
0.0000718	0.00000941	0.000000379
0.0000254	0.00000706	0.000000164
0.0000809	0.00000684	0.000000215
0.0000379	0.00000566	0.000000179
0.0000779	0.00000718	0.000000383

0.0000779	0.00000718	0.000000383
0.0000322	0.00000664	0.000000226
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0.0000255	0.00000509	0.000000115
0.0000414	0.00000715	0.000000231
0.0000393	0.00000602	0.000000186
0.000168865	0.0000224	0.000000839
0.0000598	0.0000103	0.000000287
0.000059	0.0000142	0.000000372
0.00000707	0.00000515	0.000000089
0.0000466	0.00000705	0.000000263
0.0000735	0.000012	0.000000353
0.0000423	0.0000078	0.000000262
0.0000404	0.0000103	0.000000203
0.0000447	0.00000683	0.00000027
0.0000511	0.00000629	0.000000261
0.0000351	0.00000714	0.000000254
0.0000359	0.0000101	0.000000184
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0.0000359	0.0000101	0.000000184
0.0000359	0.0000101	0.000000184
0.0000391	0.0000064	0.000000241
0.0000456	0.00000687	0.000000247
0.000058	0.00000894	0.000000276
0.0000483	0.00000782	0.000000208
0.0000809	0.000014	0.00000047
0.0000341	0.00000771	0.000000198
0.0000437	0.00000499	0.000000243
0.0000506	0.00000683	0.000000289
0.0000447	0.00000682	0.000000138
0.0000227	0.00000592	0.000000146
0.0000372	0.0000062	0.000000186
0.0000382	0.00000591	0.000000145
0.0000581	0.00000836	0.000000311
0.0000243	0.00000514	0.000000154
0.0000204	0.0000088	0.00000016
0.0000361	0.0000137	0.000000352
0.0000345	0.0000142	0.000000372
0.0000596	0.0000106	0.000000324
0.0000535	0.0000104	0.000000297
0.0000623	0.0000109	0.000000433
0.0000427	0.00000586	0.000000176
0.0000548	0.00000942	0.000000246
0.0000834	0.0000125	0.000000622
0.00000187	0.00000348	1.75E-08
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0.0000351	0.00000478	0.00000017

0.0000388	0.00000451	0.00000018
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0.0000134	0.00000415	0.000000102
0.0000552	0.00000882	0.000000273
0.00000208	0.0000034	2.84E-08
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0.0000664	0.00000997	0.000000372
0.00000249	0.00000388	3.36E-08
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0.0000259	0.00000523	0.000000147
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0.0000599	0.0000103	0.000000359
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0.00000492	0.00000409	0.00000011
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0.0000534	0.00000968	0.000000035
0.00000474	0.00000557	6.16E-08
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0.00000813	0.00000632	0.000000112
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0.0000142	0.00000627	0.000000161
0.0000221	0.00000581	0.000000158
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0.0000128	0.00000417	9.34E-08
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0.0000455	0.00000423	0.000000261
0.0000446	0.00000758	0.000000377
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0.0000772	0.000032	0.000000298
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0.0000863	0.0000419	0.000000496
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0.000120467	0.0000651	0.000000594
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0.0000394	0.0000115	0.000000122
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0.0000989	0.0000651	0.000000676
0.0000471	0.0000118	0.000000393
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0.0000281	0.00000583	0.000000246



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0	0.00000156	3.92E-08
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0.0000963	0.0000472	0.000000486
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0.0000926	0.0000578	0.000000607
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0.0000776	0.0000233	0.00000132
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0.000117683	0.0000337	0.000000951
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0.00000584	0.00000247	2.55E-08
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0.0000888	0.0000337	0.00000276
0.000000178	0.000000587	0.000000473
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5.06E-08	0.000000366	0.000000382
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0.000000241	0.000000498	0.000000541
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0.000000222	0.000213362	0.00000034
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0.000112966	0.000000248	0.000000218
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0.00000286	0.0000164	7.91E-08
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0.00000298	0.0000166	9.37E-08
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0.000000174	0.00000031	0.00000235
0	6.27E-08	0.00000453
0.000000818	0.00000624	0.0000453
0.000000222	0	0.0000012
0.000000419	0.00000102	0.0000525
0.000000224	0.00000018	0.00000212
0.00000021	0.000000167	0.000002
0.0000188	0.0000046	0.000115493
0.00000262	0.0000221	0.000227645
0.000000204	0.000000163	0.00000197
0.000000192	0.000000665	0.0000125
0	0.00000198	0.0000479
0	0	0.000000714
0.000000149	0.000000518	0.00000986
0	0	0
0.00000281	0.0000112	0.000183472
0.000000198	0.0000003	0.00000295
0.00000209	0.0000215	0.000170648
0.000000238	0.000000274	0.00000252
0.000000505	0.00000189	0.0000176
3.51E-08	0	0.0000035
0.000000832	0.0000174	0.000288448
0.000000201	0.000000236	0.00000281
0	0.000000291	0.0000331
0	0	0.0305147
0	0	0.0000077
0	0	0.00000477
0.000000213	0	0.00000205
0.00000128	0.0000207	0.000183684
0.00000662	0.00000437	0.000160146
0.000000224	0.000000197	0.00000198
0	0	0.000033
0.000000716	0.000000358	0.0000142
0	0	0.00000607
0	0	0.0000649
0	0	0.0000817
0.00000117	0.000018	0.000216972

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0	0	0.0000701
0	0	0.0000826
0	0	0.0000669
0	0	0.0000861
0.00000123	0.0000204	0.000197537
0	0	0.0000542
0	0	0.0000758
0.000000168	0.000000286	0.00000281
0	0	0.0000424
0.00000015	0.000000253	0.0000022
0.000000344	0	0.00000432
0	0	0.0000401
0	0	0.00000386
0	0	0.0000854
0	0	0.0000608
0	0	0.0000675
0	0	0.0000781
9.32E-08	0	0.00000105
0	0	0.0000536
0	0	0.0000715
0	0	0.0000557
0	0	0
0	0	0.00000863
0	0	0.0000355
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0	0	0.0000973
0.00000205	0	0.000160144
0	0	0.0000808
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0	0	0.000114283
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0	0	0.0000512

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0.000000166	0	0.00000145
0	0	0.00000723
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0	0	0.0000395
0	0	0.0000454
0	0	0.0000486
0	0	0.0000418
0	0	0.000037
0	0	0.0000338
0	0	0.0000326
0	0	0.0000603
0	0	0.0000103
0	0	0.0000483
0	0	0.00000351
0	0	0.0000101
0	0	0.0000425
0	0	0
0	0	0.00000906
0	0	0.00000926
0	0	0.0000531
0	0	0.0000531
0	0	0.0111892
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0	0	0.00000874
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0	0	0.00000891
0	0	0.0000353
0.000000896	0	0.000082
0	0	0.00000872
0	0	0.0000527
0	0	0.0000527
0.00000175	0.00000133	0.0000882

0	0	0.0000644
0	0	0.00000821
0.000000175	0.000000167	0.0000143
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0	0	0.00000863
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0	0	0.00000816
0	0	0.00000844
0.000000336	0	0.0000027
0	0	0.0000293
0.000000634	0.000000463	0.0000598
0	0	0.0000529
0	0	0.00000806
0	0	0.00000702
0	0	0.00000702
0	0	0.0000197
0.000000144	0.000000216	0.00013352
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0	0	0.0000223
0.000000551	0.000000037	0.0000282
0	0	0.0000478
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0	0	0.0000297
0.000000223	0.000000285	0.0000266
0	0	0.0000774
0.000000182	0.000000158	0.000136704
0	0	0.0000225
0	0.0000167	0.0000508
0	0.0000129	0.0000407
0	0.00000502	0.0000169
0	0.00555284	0.0178875
0	0.00000537	0.0000181
0.000000314	0.000000492	0.0000535
0	0.0000145	0.0000447
0	0.00000558	0.0000188
0.000000709	0.000000473	0.000212258
8.74E-08	0.00000508	0.000104604
0.000000283	0.000000338	0.0000329
0	0.00000554	0.0000155
0	0.0000151	0.0000475
0	0.0000156	0.0000488
0	0.0000156	0.0000488
0.00000019	0.000000239	0.0000283
0.000000146	0.000000441	0.0000542
0.000000271	0.000000316	0.0000384

0	0	0.00000383
0.000000185	0	0.0000242
0.000000168	0.000000121	0.0000355



log10_vanderbiltRatio	log10_uncRatio	averageRatio
2.071209823	2.786766601	2.428988212
1.989078505	2.858640857	2.423859681
1.982061477	2.821268388	2.401664932
1.982061477	2.821268388	2.401664932
2.025233516	2.768201331	2.396717424
1.884764677	2.892626191	2.388695434
2.004157691	2.737938713	2.371048202
1.923165832	2.818288973	2.370727402
2.253885055	2.479384102	2.366634579
2.002961273	2.70329937	2.353130321
1.911072735	2.730766592	2.320919663
1.963707807	2.664318978	2.314013393
1.99406361	2.624145196	2.309104403
1.917121122	2.688177783	2.302649452
2.198576132	2.400125323	2.299350727
1.967101903	2.624553976	2.295827939
1.970315073	2.621072618	2.295693845
2.310027366	2.270257006	2.290142186
2.196029013	2.382791915	2.289410464
2.21178584	2.347347624	2.279566732
1.907173324	2.644099702	2.275636513
2.170159382	2.376245252	2.273202317
2.168096235	2.376218714	2.272157475
1.882450567	2.652130576	2.267290572
1.923927977	2.604127437	2.264027707
1.901705916	2.623773429	2.262739672
2.141096976	2.383274683	2.262185829
2.141096976	2.383274683	2.262185829
1.987283695	2.532992216	2.260137956
1.920563019	2.596084682	2.25832385
1.902150462	2.612691995	2.257421228
2.02701267	2.486246334	2.256629502
2.02701267	2.486246334	2.256629502
1.934841382	2.572634612	2.253737997
1.889802963	2.614596654	2.252199809
2.169940358	2.332315199	2.251127779
1.933311766	2.565796547	2.249554156
1.925007364	2.566058292	2.245532828
1.925007364	2.566058292	2.245532828
1.891626169	2.590338535	2.240982352
1.891626169	2.590338535	2.240982352
2.248984223	2.219475412	2.234229818
2.471385415	1.996620785	2.2340031
1.990079653	2.465981281	2.228030467
2.143618562	2.310677853	2.227148208
2.195688983	2.231013347	2.213351165

2.214851733	2.203224237	2.209037985
2.131573695	2.276454048	2.204013871
2.161183678	2.219136769	2.190160223
2.370745089	1.974830731	2.17278791
1.881745131	2.459213547	2.170479339
2.115483905	2.20952241	2.162503158
2.245578517	2.067784169	2.156681343
2.117200947	2.195562897	2.156381922
2.295934802	2.014282276	2.155108539
2.336081807	1.972633994	2.1543579
2.266144229	2.027062073	2.146603151
2.106130523	2.15537445	2.130752487
2.106130523	2.15537445	2.130752487
2.155964975	2.092776619	2.124370797
2.039571736	2.196578548	2.118075142
2.062585024	2.171488013	2.117036518
2.023375955	2.209876946	2.116626451
1.997738753	2.232763635	2.115251194
2.090178394	2.138120256	2.114149325
2.107416613	2.117723231	2.112569922
1.893073526	2.317380197	2.105226862
1.956555001	2.253022885	2.104788943
1.956555001	2.253022885	2.104788943
2.012776013	2.195362079	2.104069046
2.094143151	2.113555585	2.103849368
2.094143151	2.113555585	2.103849368
1.996802676	2.207780767	2.102291722
1.959268825	2.241801864	2.100535345
2.045491205	2.153198203	2.099344704
1.833739646	2.357086263	2.095412954
1.957619286	2.231633895	2.094626591
1.864952643	2.321701422	2.093327032
2.10293604	2.075688039	2.089312039
2.000947264	2.168576253	2.084761759
1.949249073	2.217330035	2.083289554
1.954411367	2.207399627	2.080905497
2.015024816	2.145049301	2.080037058
2.113908298	2.043585171	2.078746734
1.85302956	2.300919948	2.076974754
1.936526209	2.214532289	2.075529249
1.855873484	2.290965464	2.073419474
2.109940357	2.036447724	2.073194041
1.907011378	2.239113838	2.073062608
1.971532389	2.17339535	2.07246387
1.999060336	2.14429406	2.071677198
1.978252965	2.164001513	2.071127239
1.978252965	2.164001513	2.071127239

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1.937973223	2.180300732	2.059136978
2.05194578	2.06508936	2.05851757
2.046140265	2.06823051	2.057185387
1.858781706	2.252589206	2.055685456
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1.946282114	2.161165608	2.053723861
1.946282114	2.161165608	2.053723861
1.946282114	2.161165608	2.053723861
1.957211671	2.148240179	2.052725925
1.964227164	2.140669489	2.052448327
1.882854909	2.220032431	2.05144367
1.997264522	2.103579466	2.050421994
1.983210882	2.117002254	2.050106568
1.941951558	2.154701344	2.048326451
1.849190029	2.243778281	2.046484155
2.197448846	1.894734934	2.04609189
1.924642742	2.167062496	2.045852619
1.918695764	2.172251261	2.045473513
1.891823783	2.196655986	2.044239885
1.91668579	2.171297229	2.04399151
2.194980958	1.890264896	2.042622927
1.990811722	2.089520126	2.040165924
1.911558892	2.162015245	2.036787069
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2.002351435	2.067505321	2.034928378
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1.866085822	2.201939749	2.034012786
1.866085822	2.201939749	2.034012786
1.866085822	2.201939749	2.034012786
1.916646751	2.151148318	2.033897535
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1.761358477	2.295357229	2.028357853
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1.891151849	2.128368333	2.009760091
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1.740248682	2.026197103	1.883222892
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1.778732639	1.984150206	1.881441422
1.828777587	1.925070328	1.876923957
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2.261641248	1.483012992	1.87232712
2.237552088	1.504306004	1.870929046
2.249747901	1.485626689	1.867687295
1.906728248	1.823964768	1.865346508
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1.907049892	1.817267524	1.862158708
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1.805268859	1.887635839	1.846452349
2.279421685	1.397708991	1.838565338
1.955815818	1.718431986	1.837123902
1.705289413	1.96597993	1.835634671
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2.245107525	1.377523353	1.811315439
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