



- 1: 2.19 GO:0005506--iron ion binding
- 2: 2.19 iron
- 3: 2.29 GO:0045333--cellular respiration
- 4: 2.21 GO:0015980--energy derivation by oxidation of organic compounds
- 5: 1.81 GO:0006991--generation of precursor metabolites and energy
- 6: 3.16 GO:0051539--4 iron,4 sulfur cluster binding
- 7: 3.17 4Fe-4S
- 8: 2.64 iron-sulfur
- 9: 2.45 GO:0051536--iron-sulfur cluster binding
- 10: 2.45 GO:0051540--metal cluster binding
- 11: 2.87 electron transport
- 12: 2.54 GO:0022900--electron transport chain
- 13: 4.76 ecw00290:Valine,leucine and isoleucine biosynthesis
- 14: 6.21 branched-chain amino acid biosynthesis
- 15: 3.53 GO:0009082--branched chain family amino acid biosynthetic process
- 16: 3.04 GO:0093081--branched chain family amino acid metabolic process
- 17: 1.53 GO:0046914--transition metal ion binding
- 18: 1.4 GO:0043169--cation binding
- 19: 1.4 GO:0043167--ion binding
- 20: 1.37 GO:0046872--metal ion binding
- 21: 1.46 metal-binding
- 22: 18.59 GO:0004333--fumarate hydratase activity
- 23: 9.02 IPR00362:Fumarate lyase
- 24: 5.39 ecv0070:Rantothionate end CoA biosynthesis
- 25: 3.77 ecv0020:Citric cycle (TCA cycle)
- 26: 4.05 tricarboxylic acid cycle
- 27: 3.39 GO:0008999--tricarboxylic acid cycle
- 28: 3.39 GO:0046356--acetyl-CoA catabolic process
- 29: 3.27 GO:0051187--cofactor catabolic process
- 30: 3.27 GO:0009109--coenzyme catabolic process
- 31: 2.85 GO:0006084--acetyl-CoA metabolic process
- 32: 3.62 ecv00620:Butanoate metabolism
- 33: 1.44 oxidoreductase
- 34: 1.32 GO:005314--oxidation reduction
- 35: 2.84 carbon-oxygen lyase
- 36: 3.02 hydro-lyase
- 37: 2.28 GO:0015835--hydro-lyase activity
- 38: 6.56 IPR006556:Molybdopterin oxidoreductase
- 39: 6.01 IPR00610:Aspartate decarboxylase-like fold
- 40: 10.82 IPR006963:Molybdopterin oxidoreductase Fe4S4 region
- 41: 4.14 Molybdenum
- 42: 6.01 IPR006555:Molybdopterin oxidoreductase,prokaryotic,conserved site
- 43: 5.41 IPR006557:Molybdopterin dinucleotide-binding region
- 44: 2.94 GO:0030151--molybdenum ion binding
- 45: 3.11 iron-sulfur protein
- 46: 1.94 metalloprotein
- 47: 2.35 amino-acid biosynthesis
- 48: 1.3 GO:0008652--cellular amino acid biosynthetic process
- 49: 1.29 GO:0005309--amine biosynthetic process
- 50: 5.8 ecv03440:Homologous recombination
- 51: 1.9 DNA damage
- 52: 1.78 dna repair
- 53: 1.36 GO:0033554--cellular response to stress
- 54: 1.37 GO:0006281--DNA repair
- 55: 1.37 GO:0006974--response to DNA damage stimulus

- group 1: 3.64
- group 2: 3.51
- group 3: 3.45
- group 4: 2.91
- group 5: 2.12
- group 6: 2.09
- group 7: 1.75
- group 8: 1.60
- group 9: 1.47
- group 10: 1.43
- group 11: 1.26
- group 12: 1.25
- group 13: 1.24
- group 14: 1.17
- group 15: 1.01
- group 16: 1.01