

Key	Enzyme Family	Average copy per genome in each database				Maximum	Minimum
		Actino bacteria	Cyano bacteria	Pseudo monas	Archaea		
A1	Acetylornithine aminotransferase	8.24	2.72	12.03	3.12	Pseudomonas	Archaea
B1	Glutamine synthetase	3.21	1.17	6.46	1.29	Pseudomonas	Cyanobacteria
C1	Anthranilate synthase component 1	2.58	2.01	2.42	1.1	Pseudomonas	Archaea
D1	Fumarate hydratase	1.93	0.92	3.61	0.45	Pseudomonas	Archaea
E1	Acetolactate synthase large subunit	4.81	1.87	4.69	1.97	Actinobacteria	Cyanobacteria
F1	Aspartate transaminase	3.38	2.52	5.53	2.96	Pseudomonas	Archaea
G1	Imidazole glycerol phosphate synthase H	1.90	2.05	2.89	1.81	Pseudomonas	Archaea
A2	Dihydro picolinate synthase	2.09	0.9	3.1	1.01	Pseudomonas	Cyanobacteria
B2	Dihydroxy acid dehydratase	1.68	0.96	2.73	0.75	Pseudomonas	Archaea
C2	Diaminopimelate decarboxylase	1.68	1.02	2.43	0.54	Pseudomonas	Archaea
D2	Cysteine synthase	2.84	2.34	2.71	0.89	Pseudomonas	Archaea
E2	Acetylglutamate kinase	0.98	0.92	1.84	0.41	Pseudomonas	Archaea
F2	3-isopropylmalate dehydrogenase	1.43	1.05	2.45	1.76	Pseudomonas	Cyanobacteria
G2	Citrate synthase	2.14	0.92	1.97	0.71	Actinobacteria	Archaea
A3	Glycine hydroxymethyltransferase	1.76	0.89	2.24	0.91	Pseudomonas	Archaea
B3	Phosphoribosyl isomerase A	0.95	1.53	1.81	1.12	Pseudomonas	Archaea
C3	Fumarate reductase iron sulfur subunit	1.81	0.47	1.04	0.57	Actinobacteria	Cyanobacteria
D3	Glutamate 5 semialdehyde dehydrogenase	0.96	1.43	1.05	0.26	Cyanobacteria	Archaea
E3	Glutamine 2 oxoglutarate aminotransferase	1.18	0.23	1.46	0.5	Pseudomonas	Cyanobacteria
F3	3 dehydroquinate synthase	1.17	1.22	1.13	0.2	Pseudomonas	Archaea
G3	Pyruvate kinase	1.34	1.44	1.6	0.6	Pseudomonas	Archaea
A4	Imidazoleglycerol phosphate dehydratase	0.94	0.87	0.94	0.74	Archaea	Cyanobacteria
B4	Glutamate synthase	0.96	1.08	0.96	0.19	Cyanobacteria	Archaea
C4	Isopropylmalate isomerase large subunit	1.21	1.03	1.2	1.83	Archaea	Cyanobacteria
D4	Ornithine carbamoyltransferase	1.15	0.9	1.63	1.23	Pseudomonas	Cyanobacteria
E4	Argininosuccinate lyase	1.05	0.92	1.27	0.75	Actinobacteria	Archaea
F4	N acetylglutamate synthase	0.99	0.93	0.97	0.3	Pseudomonas	Archaea
G4	glutamate dehydrogenase	0.74	0.56	0.65	1.23	Archaea	Cyanobacteria
A5	Pyrroline 5 carboxylate reductase	0.97	0.89	0.99	0.39	Pseudomonas	Archaea
B5	Threonine synthase	1.67	1.48	1.21	1.79	Archaea	Pseudomonas
C5	Tryptophan synthase alpha	1.00	1.03	1	0.56	Cyanobacteria	Archaea
D5	Indole-3-glycerol phosphate synthase	1.10	1.06	1.02	0.67	Actinobacteria	Archaea
E5	Ribose phosphate pyrophosphokinase	1.23	0.93	1	0.84	Actinobacteria	Archaea
F5	Histidinol dehydrogenase	1.03	1.06	1	0.75	Cyanobacteria	Archaea
G5	Argininosuccinate synthase	1.06	0.92	0.99	0.77	Actinobacteria	Archaea
A6	Enolase	1.18	0.93	1.05	0.89	Actinobacteria	Archaea
B6	N acetyl gamma glutamyl phosphate reductase	1.02	0.93	0.97	0.75	Actinobacteria	Archaea
C6	Phosphoribosylanthranilate isomerase	1.12	0.87	0.98	0.48	Actinobacteria	Cyanobacteria
D6	Tryptophan synthase beta	1.22	1.02	1.08	1.22	Actinobacteria	Cyanobacteria
E6	Ketoacid reductoisomerase	1.00	0.89	0.98	0.8	Pseudomonas	Archaea
F6	Phosphoglycerate kinase	0.98	0.92	0.96	0.87	Pseudomonas	Archaea
G6	Anthranilate phosphoribosyltransferase	0.95	0.88	0.97	0.89	Pseudomonas	Cyanobacteria