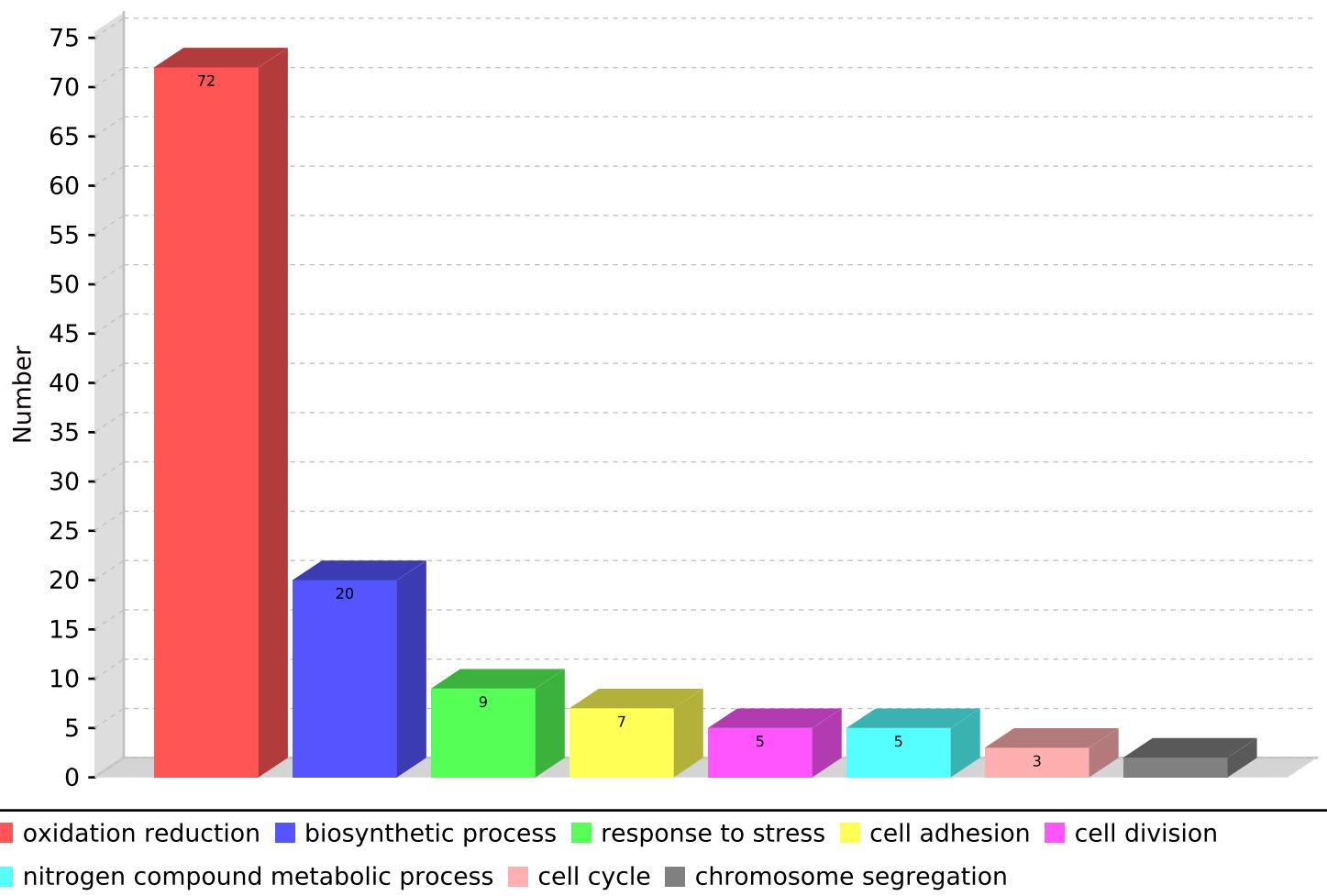


## GO by Process/ GO Level:3



### biosynthetic process

CDS	Annotation
Cp1002_0752	aminotransferase biotin synthesis related protein
Cp1002_1180	aminotransferase biotin synthesis related protein
Cp1002_2083	anthranilate synthase component i
Cp1002_0142	aspt gene product
Cp1002_1489	cobalamin-biosynthesis related aminotransferase
Cp1002_1019	cobn gene product
Cp1002_0788	glga gene product
Cp1002_0301	glycosyl transferase
Cp1002_1415	glycosyl transferase
Cp1002_1750	glycosyl transferase
Cp1002_2079	glycosyl transferase
Cp1002_1940	glycosyltransferase
Cp1002_0900	isochorismate synthase
Cp1002_0914	isochorismate synthase
Cp1002_1177	isochorismate synthase
Cp1002_1618	isochorismate synthase
Cp1002_1823	isochorismate synthase
Cp1002_1833	isochorismate synthase
Cp1002_2080	phytoene synthase

## biosynthetic process

CDS	Annotation
Cp1002_0155	secreted protein

## cell adhesion

CDS	Annotation
Cp1002_0316	abc transporter substrate-binding protein
Cp1002_0988	I domain-containing protein
Cp1002_1083	I domain-containing protein
Cp1002_1811a	I domain-containing protein
Cp1002_1964	I domain-containing protein
Cp1002_0439	mnta gene product
Cp1002_0170	surface-anchored fimbrial subunit

## cell cycle

CDS	Annotation
Cp1002_0401	esx-3 secretion system protein eccc3
Cp1002_1662	esx-3 secretion system protein eccc3
Cp1002_1394	phospho-n-acetylmuramoyl-pentapeptide-transferase

## cell division

CDS	Annotation
Cp1002_0401	esx-3 secretion system protein eccc3
Cp1002_1662	esx-3 secretion system protein eccc3
Cp1002_1394	phospho-n-acetylmuramoyl-pentapeptide-transferase
Cp1002_0914	segregation and condensation protein b
Cp1002_0973	segregation and condensation protein b

## chromosome segregation

CDS	Annotation
Cp1002_0401	esx-3 secretion system protein eccc3
Cp1002_1662	esx-3 secretion system protein eccc3

## nitrogen compound metabolic process

CDS	Annotation
Cp1002_0560	copper-containing nitrite reductase
Cp1002_1847	nitrite reductase periplasmic cytochrome c552
Cp1002_1326	pii uridylyl-transferase
Cp1002_1017	polypropenol-phosphate-mannose synthase
Cp1002_1889	upf0012 hydrolase

**oxidation reduction**

CDS	Annotation
Cp1002_0609	-diketo-d-gluconic acid reductase a
Cp1002_0753	2-dehydropantoate 2-reductase
Cp1002_1035	2-dehydropantoate 2-reductase
Cp1002_0742	4-hydroxy-3-methylbut-2-enyl diphosphate reductase
Cp1002_1154	4-hydroxy-3-methylbut-2-enyl diphosphate reductase
Cp1002_1338	alanine dehydrogenase
Cp1002_1891	alcohol dehydrogenase
Cp1002_1932	aldehyde dehydrogenase
Cp1002_1051	aldo keto reductase family oxidoreductase
Cp1002_0333	anaerobic ribonucleoside triphosphate reductase
Cp1002_0171	aspartate-semialdehyde dehydrogenase
Cp1002_1783	betaine aldehyde dehydrogenase
Cp1002_0560	copper-containing nitrite reductase
Cp1002_1406	cytochrome ubiquinol oxidase subunit
Cp1002_1407	cytochrome ubiquinol oxidase subunit
Cp1002_1506	cytochrome ubiquinol oxidase subunit
Cp1002_1703	cytochrome ubiquinol oxidase subunit
Cp1002_1704	cytochrome ubiquinol oxidase subunit
Cp1002_1711	cytochrome ubiquinol oxidase subunit
Cp1002_0102	decaprenylphosphoryl-beta-d-ribose 2-epimerase component
Cp1002_1115	diaminohydroxyphosphoribosylaminopyrimidine deaminase 5-amino-6-(5-phosphoribosylamino)uracil reductase
Cp1002_1053	dihydroorotate dehydrogenase 2
Cp1002_0233	dtdp-4-dehydrorhamnose reductase
Cp1002_1375	dtdp-4-dehydrorhamnose reductase
Cp1002_1487	dtdp-4-dehydrorhamnose reductase
Cp1002_2079	dtdp-4-dehydrorhamnose reductase
Cp1002_1833	ferredoxin ferredoxin-nadp reductase
Cp1002_0472	flavoprotein disulfide reductase
Cp1002_1578	gamma-glutamyl phosphate reductase
Cp1002_1099	glucose-6-phosphate 1-dehydrogenase
Cp1002_1731	glutathione peroxidase
Cp1002_1702	glycerol dehydrogenase
Cp1002_1436	glycine dehydrogenase
Cp1002_1359	histidinol dehydrogenase
Cp1002_0425	inosine 5-monophosphate dehydrogenase
Cp1002_0053	membrane protein
Cp1002_0591	membrane protein
Cp1002_1907	membrane protein
Cp1002_2049	membrane protein
Cp1002_2052	membrane protein
Cp1002_2066	membrane protein
Cp1002_0946	n-acetyl-gamma-glutamyl-phosphate reductase
Cp1002_1043	n-acetyl-gamma-glutamyl-phosphate reductase
Cp1002_1009	nadh dehydrogenase
Cp1002_1339	nadp-specific glutamate dehydrogenase
Cp1002_0699	nitronate monooxygenase
Cp1002_1819	nitronate monooxygenase
Cp1002_0073	oxidoreductase
Cp1002_0524	oxidoreductase
Cp1002_1451	oxidoreductase
Cp1002_1706	phytoene dehydrogenase
Cp1002_2081	phytoene dehydrogenase
Cp1002_1020	precorrin-3b synthase

### oxidation reduction

CDS	Annotation
Cp1002_1909	protein fadf
Cp1002_1748	pyruvate dehydrogenase
Cp1002_0250	pyruvate formate-lyase activating enzyme
Cp1002_0118	quinone oxidoreductase
Cp1002_1675	ribonucleotide-diphosphate reductase subunit alpha
Cp1002_0801	shikimate 5-dehydrogenase
Cp1002_1143	shikimate 5-dehydrogenase
Cp1002_0101	short chain dehydrogenase
Cp1002_0697	short-chain dehydrogenase reductase sdr
Cp1002_0086	short-chain dehydrogenase reductase yusr
Cp1002_0640	succinate-semialdehyde dehydrogenase
Cp1002_1163	thiol peroxidase
Cp1002_2101	thioredoxin
Cp1002_2100	thioredoxin reductase
Cp1002_0118	udp-glucose 6-dehydrogenase
Cp1002_0640	udp-glucose 6-dehydrogenase
Cp1002_1127	udp-glucose 6-dehydrogenase
Cp1002_1930	udp-glucose 6-dehydrogenase
Cp1002_1544	uncharacterized protein

### response to stress

CDS	Annotation
Cp1002_1895	heat shock protein regulator
Cp1002_1527	heat-inducible transcription repressor
Cp1002_0433	hydrolase alpha beta superfamily
Cp1002_0697	hydrolase alpha beta superfamily
Cp1002_0993	hydrolase alpha beta superfamily
Cp1002_1042	hydrolase alpha beta superfamily
Cp1002_1555	hydrolase alpha beta superfamily
Cp1002_0934	stress related protein
Cp1002_2037	universal stress protein