

Genelist	GO-biological process	Corrected p-value	Overlap	Genelist	Frequency genelist	GO-term	Background	Frequency background
down pcc1-4	alcohol metabolic process (GO:0006066)	0.005749336	13	161	8.074534161	241	6609	3.646542593
down pcc1-4	amine metabolic process (GO:0009308)	0.002960473	16	161	9.937888199	305	6609	4.61491905
down pcc1-4	biosynthetic process (GO:0009058)	0.002974003	72	161	44.72049689	2253	6609	34.08987744
down pcc1-4	cellular amine metabolic process (GO:0044106)	0.000905359	16	161	9.937888199	272	6609	4.115593999
down pcc1-4	cellular amino acid and derivative metabolic process (GO:0006519)	0.001736356	17	161	10.55900621	317	6609	4.796489635
down pcc1-4	cellular amino acid derivative metabolic process (GO:0006575)	0.001742501	7	161	4.347826087	72	6609	1.089423513
down pcc1-4	cellular biogenic amine metabolic process (GO:0006576)	0.001870693	5	161	3.105590062	37	6609	0.559842639
down pcc1-4	cellular biosynthetic process (GO:0044249)	0.003199581	71	161	44.09937888	2220	6609	33.59055833
down pcc1-4	cellular lipid metabolic process (GO:0044255)	0.006367008	13	161	8.074534161	244	6609	3.69193524
down pcc1-4	cellular metabolic compound salvage (GO:0043094)	0.000864511	7	161	4.347826087	64	6609	0.968376456
down pcc1-4	copper ion transport (GO:0006825)	0.00629241	3	161	1.863354037	16	6609	0.242094114
down pcc1-4	di-, tri-valent inorganic cation transport (GO:0015674)	0.004934717	5	161	3.105590062	46	6609	0.696020578
down pcc1-4	establishment of ribosome localization (GO:0033753)	0.003674036	5	161	3.105590062	43	6609	0.650627932
down pcc1-4	ethanolamine and derivative metabolic process (GO:0042439)	0.000280652	4	161	2.48447205	14	6609	0.21183235
down pcc1-4	glycerolipid biosynthetic process (GO:0045017)	0.001869977	6	161	3.726708075	54	6609	0.817067635
down pcc1-4	glycerolipid metabolic process (GO:0046486)	0.00510172	7	161	4.347826087	87	6609	1.316386745
down pcc1-4	glycerophospholipid biosynthetic process (GO:0046474)	0.001534183	6	161	3.726708075	52	6609	0.786805871
down pcc1-4	glycerophospholipid metabolic process (GO:0006650)	0.00319521	7	161	4.347826087	80	6609	1.21047057
down pcc1-4	intracellular copper ion transport (GO:0015680)	0.003426547	2	161	1.242236025	4	6609	0.060523529
down pcc1-4	iron ion transmembrane transport (GO:0034755)	0.005619641	2	161	1.242236025	5	6609	0.075654411
down pcc1-4	iron ion transport (GO:0006826)	0.000820214	5	161	3.105590062	31	6609	0.469057346
down pcc1-4	lipid biosynthetic process (GO:0008610)	0.004611475	10	161	6.211180124	156	6609	2.360417612
down pcc1-4	maturation of SSU-rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.8S rRNA, LSU-rRNA) (G	0.009676512	7	161	4.347826087	98	6609	1.482826449
down pcc1-4	ncRNA metabolic process (GO:0034660)	0.001367697	23	161	14.28571429	483	6609	7.308216069
down pcc1-4	ncRNA processing (GO:0034470)	0.001376124	21	161	13.04347826	424	6609	6.415494023
down pcc1-4	nuclear import (GO:0051170)	0.009746055	5	161	3.105590062	54	6609	0.817067635
down pcc1-4	nuclear transport (GO:0051169)	0.003163874	10	161	6.211180124	148	6609	2.239370555
down pcc1-4	nucleocytoplasmic transport (GO:0006913)	0.003163874	10	161	6.211180124	148	6609	2.239370555
down pcc1-4	nucleoside diphosphate metabolic process (GO:0009132)	0.008295008	2	161	1.242236025	6	6609	0.090785293
down pcc1-4	organelle assembly (GO:0070925)	0.000372166	9	161	5.590062112	92	6609	1.392041156
down pcc1-4	organophosphate metabolic process (GO:0019637)	0.000783925	10	161	6.211180124	123	6609	1.861098502
down pcc1-4	phosphatidylcholine biosynthetic process (GO:0006656)	6.36E-05	4	161	2.48447205	10	6609	0.151308821
down pcc1-4	phosphatidylcholine metabolic process (GO:0046470)	0.000144183	4	161	2.48447205	12	6609	0.181570586
down pcc1-4	phosphatidylserine metabolic process (GO:0006658)	0.001741154	2	161	1.242236025	3	6609	0.045392646
down pcc1-4	phospholipid biosynthetic process (GO:0008654)	8.51E-05	9	161	5.590062112	76	6609	1.149947042
down pcc1-4	phospholipid metabolic process (GO:0006644)	0.000604302	10	161	6.211180124	119	6609	1.800574974
down pcc1-4	posttranscriptional regulation of gene expression (GO:0010608)	0.000512055	14	161	8.695652174	208	6609	3.147223483
down pcc1-4	protein import into nucleus (GO:0006606)	0.009746055	5	161	3.105590062	54	6609	0.817067635
down pcc1-4	regulation of cellular protein metabolic process (GO:0032268)	0.000217997	15	161	9.316770186	215	6609	3.253139658
down pcc1-4	regulation of protein metabolic process (GO:0051246)	0.003272535	15	161	9.316770186	280	6609	4.236646997
down pcc1-4	regulation of translation (GO:0006417)	0.000225212	14	161	8.695652174	192	6609	2.905129369
down pcc1-4	ribonucleoprotein complex assembly (GO:0022618)	0.004084091	9	161	5.590062112	129	6609	1.951883795
down pcc1-4	ribonucleoprotein complex biogenesis (GO:0022613)	0.000179658	26	161	16.14906832	503	6609	7.610833712
down pcc1-4	ribosomal large subunit assembly (GO:0000027)	2.74E-07	9	161	5.590062112	39	6609	0.590104403
down pcc1-4	ribosomal large subunit biogenesis (GO:0042273)	3.28E-09	14	161	8.695652174	77	6609	1.165077924
down pcc1-4	ribosomal subunit assembly (GO:0042257)	5.88E-06	9	161	5.590062112	55	6609	0.832198517
down pcc1-4	ribosomal subunit export from nucleus (GO:0000054)	0.003674036	5	161	3.105590062	43	6609	0.650627932
down pcc1-4	ribosome assembly (GO:0042255)	4.94E-05	9	161	5.590062112	71	6609	1.074292631
down pcc1-4	ribosome biogenesis (GO:0042254)	2.58E-05	26	161	16.14906832	448	6609	6.778635194
down pcc1-4	ribosome localization (GO:0033750)	0.003674036	5	161	3.105590062	43	6609	0.650627932
down pcc1-4	rRNA metabolic process (GO:0016072)	0.000484991	19	161	11.80124224	336	6609	5.083976396
down pcc1-4	rRNA processing (GO:0006364)	0.000331998	19	161	11.80124224	326	6609	4.932667575
down pcc1-4	transition metal ion transport (GO:0000041)	0.002057416	6	161	3.726708075	55	6609	0.832198517
down pcc1-4	translation (GO:0006412)	0.000333234	40	161	24.8447205	961	6609	14.54077773
up pcc1-4	acetyl-CoA catabolic process (GO:0046356)	3.38E-06	11	471	2.335456476	30	6609	0.453926464
up pcc1-4	acetyl-CoA metabolic process (GO:0006084)	7.43E-05	11	471	2.335456476	40	6609	0.605235285
up pcc1-4	aerobic respiration (GO:0009060)	5.67E-12	30	471	6.369426752	101	6609	1.528219095

up pcc1-4	alcohol catabolic process (GO:0046164)	0.00021001	14	471	2.972399151	67	6609	1.013769103
up pcc1-4	alcohol metabolic process (GO:0006066)	8.27E-05	34	471	7.218663652	241	6609	3.646542593
up pcc1-4	allantoin catabolic process (GO:0000256)	0.000749517	4	471	0.8492569	7	6609	0.105916175
up pcc1-4	allantoin metabolic process (GO:0000255)	0.000749517	4	471	0.8492569	7	6609	0.105916175
up pcc1-4	amide transport (GO:0042886)	0.003226616	3	471	0.636942675	5	6609	0.075654411
up pcc1-4	amine biosynthetic process (GO:0009309)	2.21E-32	60	471	12.7388535	143	6609	2.163716145
up pcc1-4	amine catabolic process (GO:0009310)	4.77E-06	14	471	2.972399151	49	6609	0.741413224
up pcc1-4	amine metabolic process (GO:0009308)	2.85E-30	85	471	18.04670913	305	6609	4.61491905
up pcc1-4	amine transport (GO:0015837)	0.000762706	12	471	2.547770701	59	6609	0.892722046
up pcc1-4	amino acid transport (GO:0006865)	0.007954943	9	471	1.910828025	50	6609	0.756544107
up pcc1-4	arginine biosynthetic process (GO:0006526)	3.18E-11	10	471	2.123142251	11	6609	0.166439703
up pcc1-4	arginine metabolic process (GO:0006525)	6.68E-11	12	471	2.547770701	17	6609	0.257224996
up pcc1-4	aromatic amino acid family biosynthetic process (GO:0009073)	5.17E-06	7	471	1.486199575	12	6609	0.181570586
up pcc1-4	aromatic amino acid family metabolic process (GO:0009072)	9.11E-07	10	471	2.123142251	22	6609	0.332879407
up pcc1-4	aromatic compound biosynthetic process (GO:0019438)	1.86E-05	11	471	2.335456476	35	6609	0.529580875
up pcc1-4	aspartate family amino acid biosynthetic process (GO:0009067)	4.29E-10	19	471	4.033970276	50	6609	0.756544107
up pcc1-4	aspartate family amino acid metabolic process (GO:0009066)	2.44E-10	22	471	4.670912951	65	6609	0.983507338
up pcc1-4	ATP biosynthetic process (GO:0006754)	0.000290082	11	471	2.335456476	46	6609	0.696020578
up pcc1-4	ATP metabolic process (GO:0046034)	0.000354876	11	471	2.335456476	47	6609	0.71115146
up pcc1-4	ATP synthesis coupled electron transport (GO:0042773)	1.42E-17	20	471	4.246284501	28	6609	0.4236647
up pcc1-4	ATP synthesis coupled proton transport (GO:0015986)	3.38E-06	11	471	2.335456476	30	6609	0.453926464
up pcc1-4	branched chain family amino acid biosynthetic process (GO:0009082)	6.39E-08	9	471	1.910828025	14	6609	0.21183235
up pcc1-4	branched chain family amino acid metabolic process (GO:0009081)	1.51E-06	10	471	2.123142251	23	6609	0.348010289
up pcc1-4	carbohydrate catabolic process (GO:0016052)	8.62E-06	22	471	4.670912951	111	6609	1.679527916
up pcc1-4	carbohydrate metabolic process (GO:0005975)	0.000155908	44	471	9.341825902	353	6609	5.341201392
up pcc1-4	carboxylic acid biosynthetic process (GO:0046394)	1.32E-33	68	471	14.4373673	178	6609	2.693297019
up pcc1-4	carboxylic acid catabolic process (GO:0046395)	8.48E-06	15	471	3.184713376	58	6609	0.877591164
up pcc1-4	carboxylic acid metabolic process (GO:0019752)	1.97E-35	103	471	21.86836518	383	6609	5.795127856
up pcc1-4	carboxylic acid transport (GO:0046942)	0.004497594	12	471	2.547770701	72	6609	1.089423513
up pcc1-4	cardiolipin metabolic process (GO:0032048)	0.000120246	4	471	0.8492569	5	6609	0.075654411
up pcc1-4	catabolic process (GO:0009056)	4.17E-09	100	471	21.23142251	801	6609	12.11983659
up pcc1-4	cell death (GO:0008219)	3.01E-19	28	471	5.944798301	52	6609	0.786805871
up pcc1-4	cellular aldehyde metabolic process (GO:0006081)	8.92E-05	9	471	1.910828025	28	6609	0.4236647
up pcc1-4	cellular amide catabolic process (GO:0043605)	8.42E-05	5	471	1.061571125	8	6609	0.121047057
up pcc1-4	cellular amide metabolic process (GO:0043603)	0.000430735	7	471	1.486199575	21	6609	0.317748525
up pcc1-4	cellular amine metabolic process (GO:0044106)	3.00E-30	80	471	16.985138	272	6609	4.115599939
up pcc1-4	cellular amino acid and derivative metabolic process (GO:0006519)	5.76E-42	101	471	21.44373673	317	6609	4.796489635
up pcc1-4	cellular amino acid biosynthetic process (GO:0008652)	4.11E-34	60	471	12.7388535	135	6609	2.042669088
up pcc1-4	cellular amino acid catabolic process (GO:0009063)	9.14E-06	13	471	2.760084926	45	6609	0.680889696
up pcc1-4	cellular amino acid derivative catabolic process (GO:0042219)	0.009061305	5	471	1.061571125	19	6609	0.28748676
up pcc1-4	cellular amino acid derivative metabolic process (GO:0006575)	0.000461229	14	471	2.972399151	72	6609	1.089423513
up pcc1-4	cellular amino acid metabolic process (GO:0006520)	1.40E-31	78	471	16.56050955	249	6609	3.76758965
up pcc1-4	cellular aromatic compound metabolic process (GO:0006725)	1.30E-44	72	471	15.2866242	147	6609	2.224239673
up pcc1-4	cellular biogenic amine metabolic process (GO:0006576)	0.003837754	8	471	1.6985138	37	6609	0.559842639
up pcc1-4	cellular carbohydrate catabolic process (GO:0044275)	2.36E-06	22	471	4.670912951	103	6609	1.558480859
up pcc1-4	cellular carbohydrate metabolic process (GO:0044262)	3.16E-05	43	471	9.129511677	320	6609	4.841882282
up pcc1-4	cellular catabolic process (GO:0044248)	8.22E-08	85	471	18.04670913	681	6609	10.30413073
up pcc1-4	cellular glucan metabolic process (GO:0006073)	0.007392357	8	471	1.6985138	41	6609	0.620366167
up pcc1-4	cellular ketone metabolic process (GO:0042180)	1.09E-34	104	471	22.08067941	397	6609	6.006960206
up pcc1-4	cellular metabolic process (GO:0044237)	0.002331496	311	471	66.02972399	3953	6609	59.81237706
up pcc1-4	cellular nitrogen compound biosynthetic process (GO:0044271)	4.03E-32	89	471	18.89596603	316	6609	4.781358753
up pcc1-4	cellular nitrogen compound catabolic process (GO:0044270)	0.007000137	6	471	1.27388535	25	6609	0.378272053
up pcc1-4	cellular nitrogen compound metabolic process (GO:0034641)	8.51E-07	191	471	40.55201699	2012	6609	30.44333485
up pcc1-4	cellular protein catabolic process (GO:0044257)	0.00016515	39	471	8.280254777	301	6609	4.554395521
up pcc1-4	cellular respiration (GO:0045333)	1.07E-17	40	471	8.492569002	119	6609	1.800574974
up pcc1-4	cellular response to external stimulus (GO:0071496)	0.008628394	12	471	2.547770701	78	6609	1.180208806
up pcc1-4	cellular response to extracellular stimulus (GO:0031668)	0.008628394	12	471	2.547770701	78	6609	1.180208806
up pcc1-4	cellular response to water deprivation (GO:0042631)	0.000359817	3	471	0.636942675	3	6609	0.045392646

up pcc1-4	chorismate metabolic process (GO:0046417)	5.17E-06	7	471	1.486199575	12	6609	0.181570586
up pcc1-4	coenzyme catabolic process (GO:0009109)	1.93E-06	12	471	2.547770701	34	6609	0.514449992
up pcc1-4	coenzyme metabolic process (GO:0006732)	1.94E-06	29	471	6.157112527	159	6609	2.405810259
up pcc1-4	cofactor catabolic process (GO:0051187)	2.74E-06	12	471	2.547770701	35	6609	0.529580875
up pcc1-4	cofactor metabolic process (GO:0051186)	4.03E-12	46	471	9.766454352	213	6609	3.222877894
up pcc1-4	crisetae formation (GO:0042407)	1.80E-06	5	471	1.061571125	5	6609	0.075654411
up pcc1-4	cysteine biosynthetic process (GO:0019344)	0.000936028	5	471	1.061571125	12	6609	0.181570586
up pcc1-4	cysteine metabolic process (GO:0006534)	3.47E-05	7	471	1.486199575	15	6609	0.226963232
up pcc1-4	death (GO:0016265)	3.01E-19	28	471	5.944798301	52	6609	0.786805871
up pcc1-4	dicarboxylic acid metabolic process (GO:0043648)	9.82E-09	12	471	2.547770701	23	6609	0.348010289
up pcc1-4	dipeptide transport (GO:0042938)	0.005068891	2	471	0.42462845	2	6609	0.030261764
up pcc1-4	disaccharide catabolic process (GO:0046352)	0.005228074	7	471	1.486199575	31	6609	0.469057346
up pcc1-4	disaccharide metabolic process (GO:0005984)	0.000839446	10	471	2.123142251	44	6609	0.665758814
up pcc1-4	drug transmembrane transport (GO:0006855)	0.005613326	4	471	0.8492569	11	6609	0.166439703
up pcc1-4	drug transport (GO:0015893)	0.000305716	7	471	1.486199575	20	6609	0.302617643
up pcc1-4	electron transport chain (GO:0022900)	1.91E-12	24	471	5.095541401	63	6609	0.953245574
up pcc1-4	energy coupled proton transport, down electrochemical gradient (GO:0015985)	3.38E-06	11	471	2.335456476	30	6609	0.453926464
up pcc1-4	energy derivation by oxidation of organic compounds (GO:0015980)	2.56E-18	50	471	10.61571125	176	6609	2.663035255
up pcc1-4	energy reserve metabolic process (GO:0006112)	0.007392357	8	471	1.6985138	41	6609	0.620366167
up pcc1-4	establishment of localization (GO:0051234)	0.001700714	116	471	24.62845011	1273	6609	19.26161295
up pcc1-4	ethanol metabolic process (GO:0006067)	0.007951975	4	471	0.8492569	12	6609	0.181570586
up pcc1-4	generation of precursor metabolites and energy (GO:0006091)	7.91E-22	67	471	14.22505308	259	6609	3.918898472
up pcc1-4	glucan biosynthetic process (GO:0009250)	0.0027358	6	471	1.27388535	21	6609	0.317748525
up pcc1-4	glucan metabolic process (GO:0044042)	0.007392357	8	471	1.6985138	41	6609	0.620366167
up pcc1-4	glucose catabolic process (GO:0006007)	0.000748421	11	471	2.335456476	51	6609	0.771674989
up pcc1-4	glucose metabolic process (GO:0006006)	1.40E-05	20	471	4.246284501	98	6609	1.482826449
up pcc1-4	glutamate metabolic process (GO:0006536)	0.000142282	7	471	1.486199575	18	6609	0.272355878
up pcc1-4	glutamine family amino acid biosynthetic process (GO:0009084)	9.88E-12	16	471	3.397027601	29	6609	0.438795582
up pcc1-4	glutamine family amino acid metabolic process (GO:0009064)	5.90E-15	27	471	5.732484076	65	6609	0.983507338
up pcc1-4	glutamine metabolic process (GO:0006541)	4.59E-05	9	471	1.910828025	26	6609	0.393402935
up pcc1-4	glycine catabolic process (GO:0006546)	0.001362794	3	471	0.636942675	4	6609	0.060523529
up pcc1-4	glycine metabolic process (GO:0006544)	0.002404086	4	471	0.8492569	9	6609	0.136177939
up pcc1-4	glycogen biosynthetic process (GO:0005978)	0.000936028	5	471	1.061571125	12	6609	0.181570586
up pcc1-4	glycogen metabolic process (GO:0005977)	0.003512224	7	471	1.486199575	29	6609	0.438795582
up pcc1-4	glycoside catabolic process (GO:0016139)	0.000579756	5	471	1.061571125	11	6609	0.166439703
up pcc1-4	glycoside metabolic process (GO:0016137)	0.001545762	6	471	1.27388535	19	6609	0.28748676
up pcc1-4	glyoxylate metabolic process (GO:0046487)	0.002404086	4	471	0.8492569	9	6609	0.136177939
up pcc1-4	heterocycle biosynthetic process (GO:0018130)	7.46E-07	20	471	4.246284501	82	6609	1.240732335
up pcc1-4	heterocycle metabolic process (GO:0046483)	1.75E-13	52	471	11.0403397	242	6609	3.661673476
up pcc1-4	hexose catabolic process (GO:0019320)	0.000549033	12	471	2.547770701	57	6609	0.862460281
up pcc1-4	hexose metabolic process (GO:0019318)	2.08E-06	24	471	5.095541401	118	6609	1.785444091
up pcc1-4	histidine biosynthetic process (GO:0000105)	2.29E-06	7	471	1.486199575	11	6609	0.166439703
up pcc1-4	histidine family amino acid biosynthetic process (GO:0009076)	2.29E-06	7	471	1.486199575	11	6609	0.166439703
up pcc1-4	histidine family amino acid metabolic process (GO:0009075)	2.29E-06	7	471	1.486199575	11	6609	0.166439703
up pcc1-4	histidine metabolic process (GO:0006547)	2.29E-06	7	471	1.486199575	11	6609	0.166439703
up pcc1-4	homocysteine metabolic process (GO:0050667)	0.000340383	4	471	0.8492569	6	6609	0.090785293
up pcc1-4	homoserine metabolic process (GO:0009092)	0.003782937	4	471	0.8492569	10	6609	0.151308821
up pcc1-4	hydrogen transport (GO:0006818)	7.43E-05	11	471	2.335456476	40	6609	0.605235285
up pcc1-4	indolalkylamine biosynthetic process (GO:0046219)	0.000120246	4	471	0.8492569	5	6609	0.075654411
up pcc1-4	indolalkylamine metabolic process (GO:0006586)	0.000936028	5	471	1.061571125	12	6609	0.181570586
up pcc1-4	indole and derivative metabolic process (GO:0042430)	0.000936028	5	471	1.061571125	12	6609	0.181570586
up pcc1-4	indole derivative biosynthetic process (GO:0042435)	0.000120246	4	471	0.8492569	5	6609	0.075654411
up pcc1-4	indole derivative metabolic process (GO:0042434)	0.000936028	5	471	1.061571125	12	6609	0.181570586
up pcc1-4	inner mitochondrial membrane organization (GO:0007007)	0.007083531	5	471	1.061571125	18	6609	0.272355878
up pcc1-4	ion transmembrane transport (GO:0034220)	0.000290082	11	471	2.335456476	46	6609	0.696020578
up pcc1-4	ion transport (GO:0006811)	3.22E-14	49	471	10.40339703	210	6609	3.177485247
up pcc1-4	leucine biosynthetic process (GO:0009098)	0.003226616	3	471	0.636942675	5	6609	0.075654411
up pcc1-4	leucine metabolic process (GO:0006551)	0.001414856	4	471	0.8492569	8	6609	0.121047057

up pcc1-4	malate metabolic process (GO:0006108)	0.001362794	3	471	0.636942675	4	6609	0.060523529
up pcc1-4	maltose metabolic process (GO:0000023)	0.000548419	6	471	1.27388535	16	6609	0.242094114
up pcc1-4	metabolic process (GO:0008152)	1.32E-05	337	471	71.54989384	4135	6609	62.56619761
up pcc1-4	methionine biosynthetic process (GO:0009086)	9.04E-07	12	471	2.547770701	32	6609	0.484188228
up pcc1-4	methionine metabolic process (GO:0006555)	2.98E-07	14	471	2.972399151	40	6609	0.605235285
up pcc1-4	mitochondrial ATP synthesis coupled electron transport (GO:0042775)	1.42E-17	20	471	4.246284501	28	6609	0.4236647
up pcc1-4	mitochondrial electron transport, cytochrome c to oxygen (GO:0006123)	7.99E-09	9	471	1.910828025	12	6609	0.181570586
up pcc1-4	mitochondrial electron transport, ubiquinol to cytochrome c (GO:0006122)	3.18E-11	10	471	2.123142251	11	6609	0.166439703
up pcc1-4	monocarboxylic acid metabolic process (GO:0032787)	4.09E-06	26	471	5.520169851	139	6609	2.103192616
up pcc1-4	monohydric alcohol metabolic process (GO:0034308)	0.007951975	4	471	0.8492569	12	6609	0.181570586
up pcc1-4	monosaccharide catabolic process (GO:0046365)	8.68E-05	14	471	2.972399151	62	6609	0.938114692
up pcc1-4	monosaccharide metabolic process (GO:0005996)	4.95E-07	27	471	5.732484076	133	6609	2.012407323
up pcc1-4	monovalent inorganic cation transport (GO:0015672)	0.000114517	13	471	2.760084926	56	6609	0.847329399
up pcc1-4	NADH oxidation (GO:0006116)	0.003782937	4	471	0.8492569	10	6609	0.151308821
up pcc1-4	NADP metabolic process (GO:0006739)	0.000166253	8	471	1.6985138	24	6609	0.363141171
up pcc1-4	NADPH regeneration (GO:0006740)	0.000430735	7	471	1.486199575	21	6609	0.317748525
up pcc1-4	nicotinamide nucleotide metabolic process (GO:0046496)	2.52E-05	13	471	2.760084926	49	6609	0.741413224
up pcc1-4	nitrogen compound metabolic process (GO:0006807)	1.07E-09	207	471	43.94904459	2062	6609	31.19987895
up pcc1-4	nucleobase, nucleoside and nucleotide biosynthetic process (GO:0034404)	0.000807015	20	471	4.246284501	130	6609	1.967014677
up pcc1-4	nucleobase, nucleoside and nucleotide metabolic process (GO:0055086)	6.56E-19	61	471	12.95116773	246	6609	3.722197004
up pcc1-4	nucleobase, nucleoside, nucleotide and nucleic acid biosynthetic process (GO:0034654)	0.000807015	20	471	4.246284501	130	6609	1.967014677
up pcc1-4	nucleoside phosphate metabolic process (GO:0006753)	7.10E-18	55	471	11.67728238	214	6609	3.238008776
up pcc1-4	nucleoside triphosphate biosynthetic process (GO:0009142)	0.001052183	11	471	2.335456476	53	6609	0.801936753
up pcc1-4	nucleoside triphosphate metabolic process (GO:0009141)	0.003922938	11	471	2.335456476	62	6609	0.938114692
up pcc1-4	nucleotide biosynthetic process (GO:0009165)	0.000680599	19	471	4.033970276	119	6609	1.800574974
up pcc1-4	nucleotide metabolic process (GO:0009117)	7.10E-18	55	471	11.67728238	214	6609	3.238008776
up pcc1-4	oligopeptide transport (GO:0006857)	0.006112849	3	471	0.636942675	6	6609	0.090785293
up pcc1-4	oligosaccharide catabolic process (GO:0009313)	0.006290884	7	471	1.486199575	32	6609	0.484188228
up pcc1-4	organic acid biosynthetic process (GO:0016053)	1.32E-33	68	471	14.4373673	178	6609	2.693297019
up pcc1-4	organic acid catabolic process (GO:0016054)	8.48E-06	15	471	3.184713376	58	6609	0.877591164
up pcc1-4	organic acid metabolic process (GO:0006082)	4.05E-46	119	471	25.26539278	402	6609	6.082614616
up pcc1-4	organic acid transport (GO:0015849)	0.000313701	16	471	3.397027601	86	6609	1.301255863
up pcc1-4	ornithine biosynthetic process (GO:0006592)	2.55E-05	4	471	0.8492569	4	6609	0.060523529
up pcc1-4	ornithine metabolic process (GO:0006591)	6.72E-08	7	471	1.486199575	8	6609	0.121047057
up pcc1-4	oxidation reduction (GO:0055114)	8.50E-37	102	471	21.65605096	364	6609	5.507641095
up pcc1-4	oxidative phosphorylation (GO:0006119)	5.71E-22	32	471	6.794055202	59	6609	0.892722046
up pcc1-4	oxidoreduction coenzyme metabolic process (GO:0006733)	3.71E-05	15	471	3.184713376	65	6609	0.983507338
up pcc1-4	oxoacid metabolic process (GO:0043436)	1.97E-35	103	471	21.86836518	383	6609	5.795127856
up pcc1-4	peptide transport (GO:0015833)	0.002404086	4	471	0.8492569	9	6609	0.136177939
up pcc1-4	phosphate metabolic process (GO:0006796)	9.45E-06	42	471	8.917197452	295	6609	4.463610228
up pcc1-4	phosphatidylglycerol metabolic process (GO:0046471)	0.000749517	4	471	0.8492569	7	6609	0.105916175
up pcc1-4	phosphorus metabolic process (GO:0006793)	1.58E-07	47	471	9.978768577	300	6609	4.539264639
up pcc1-4	phosphorylation (GO:0016310)	2.25E-08	40	471	8.492569002	220	6609	3.328794069
up pcc1-4	polyamine transport (GO:0015846)	0.007951975	4	471	0.8492569	12	6609	0.181570586
up pcc1-4	positive regulation of transcription by nitrogen catabolites (GO:0090294)	0.005068891	2	471	0.42462845	2	6609	0.030261764
up pcc1-4	protein catabolic process (GO:0030163)	0.00019664	40	471	8.492569002	314	6609	4.751096989
up pcc1-4	proton transport (GO:0015992)	5.75E-05	11	471	2.335456476	39	6609	0.590104403
up pcc1-4	purine nucleoside triphosphate biosynthetic process (GO:0009145)	0.000521311	11	471	2.335456476	49	6609	0.741413224
up pcc1-4	purine nucleoside triphosphate metabolic process (GO:0009144)	0.001052183	11	471	2.335456476	53	6609	0.801936753
up pcc1-4	purine nucleotide biosynthetic process (GO:0006164)	0.00017988	15	471	3.184713376	74	6609	1.119685278
up pcc1-4	purine nucleotide metabolic process (GO:0006163)	0.000130272	16	471	3.397027601	80	6609	1.21047057
up pcc1-4	purine ribonucleoside triphosphate biosynthetic process (GO:0009206)	0.000521311	11	471	2.335456476	49	6609	0.741413224
up pcc1-4	purine ribonucleoside triphosphate metabolic process (GO:0009205)	0.001052183	11	471	2.335456476	53	6609	0.801936753
up pcc1-4	purine ribonucleotide biosynthetic process (GO:0009152)	0.000864557	13	471	2.760084926	68	6609	1.028899985
up pcc1-4	purine ribonucleotide metabolic process (GO:0009150)	0.001714516	13	471	2.760084926	73	6609	1.104554396
up pcc1-4	pyridine nucleotide metabolic process (GO:0019362)	1.02E-05	14	471	2.972399151	52	6609	0.786805871
up pcc1-4	pyruvate metabolic process (GO:0006090)	0.002834983	7	471	1.486199575	28	6609	0.4236647
up pcc1-4	regulation of apoptosis (GO:0042981)	0.006112849	3	471	0.636942675	6	6609	0.090785293

up pcc1-4	regulation of ATPase activity (GO:0043462)	0.003226616	3	471	0.636942675	5	6609	0.075654411
up pcc1-4	regulation of cell death (GO:0010941)	0.006112849	3	471	0.636942675	6	6609	0.090785293
up pcc1-4	regulation of programmed cell death (GO:0043067)	0.006112849	3	471	0.636942675	6	6609	0.090785293
up pcc1-4	respiratory electron transport chain (GO:0022904)	7.85E-16	20	471	4.246284501	32	6609	0.484188228
up pcc1-4	response to temperature stimulus (GO:0009266)	0.000354876	11	471	2.335456476	47	6609	0.711115146
up pcc1-4	response to water (GO:0009415)	0.00888779	7	471	1.486199575	34	6609	0.514449992
up pcc1-4	response to water deprivation (GO:0009414)	0.000359817	3	471	0.636942675	3	6609	0.045392646
up pcc1-4	ribonucleoside triphosphate biosynthetic process (GO:0009201)	0.000748421	11	471	2.335456476	51	6609	0.771674989
up pcc1-4	ribonucleoside triphosphate metabolic process (GO:0009199)	0.00145109	11	471	2.335456476	55	6609	0.832198517
up pcc1-4	ribonucleotide biosynthetic process (GO:0009260)	0.001064881	14	471	2.972399151	78	6609	1.180208806
up pcc1-4	ribonucleotide metabolic process (GO:0009259)	0.001981554	14	471	2.972399151	83	6609	1.255863217
up pcc1-4	serine family amino acid biosynthetic process (GO:0009070)	0.000166253	8	471	1.6985138	24	6609	0.363141171
up pcc1-4	serine family amino acid catabolic process (GO:0009071)	0.003226616	3	471	0.636942675	5	6609	0.075654411
up pcc1-4	serine family amino acid metabolic process (GO:0009069)	1.51E-06	13	471	2.760084926	39	6609	0.590104403
up pcc1-4	small molecule biosynthetic process (GO:0044283)	4.85E-34	103	471	21.86836518	396	6609	5.991829324
up pcc1-4	small molecule catabolic process (GO:0044282)	1.81E-10	35	471	7.430997877	150	6609	2.26963232
up pcc1-4	small molecule metabolic process (GO:0044281)	2.15E-51	197	471	41.82590234	963	6609	14.57103949
up pcc1-4	sulfate assimilation (GO:0000103)	0.005613326	4	471	0.8492569	11	6609	0.166439703
up pcc1-4	sulfur amino acid biosynthetic process (GO:0000097)	7.30E-06	12	471	2.547770701	38	6609	0.574973521
up pcc1-4	sulfur amino acid catabolic process (GO:0000098)	0.005068891	2	471	0.42462845	2	6609	0.030261764
up pcc1-4	sulfur amino acid metabolic process (GO:0000096)	6.07E-07	15	471	3.184713376	48	6609	0.726282342
up pcc1-4	sulfur compound biosynthetic process (GO:0044272)	1.46E-06	18	471	3.821656051	71	6609	1.074292631
up pcc1-4	sulfur metabolic process (GO:0006790)	2.36E-06	22	471	4.670912951	103	6609	1.558480859
up pcc1-4	transmembrane transport (GO:0055085)	1.29E-09	61	471	12.95116773	386	6609	5.840520502
up pcc1-4	transport (GO:0006810)	0.000424009	116	471	24.62845011	1228	6609	18.58072326
up pcc1-4	trehalose catabolic process (GO:0005993)	0.000359817	3	471	0.636942675	3	6609	0.045392646
up pcc1-4	trehalose metabolic process (GO:0005991)	0.005613326	4	471	0.8492569	11	6609	0.166439703
up pcc1-4	tricarboxylic acid cycle (GO:0006099)	3.38E-06	11	471	2.335456476	30	6609	0.453926464
up pcc1-4	tryptophan biosynthetic process (GO:0000162)	0.000120246	4	471	0.8492569	5	6609	0.075654411
up pcc1-4	tryptophan metabolic process (GO:0006568)	0.000936028	5	471	1.061571125	12	6609	0.181570586
up pcc1-4	urea catabolic process (GO:0043419)	0.005068891	2	471	0.42462845	2	6609	0.030261764
up pcc1-4	urea metabolic process (GO:0019627)	0.005068891	2	471	0.42462845	2	6609	0.030261764
up pcc1-4	vacuolar protein catabolic process (GO:0007039)	1.64E-11	32	471	6.794055202	118	6609	1.785444091
up pcc1-4	vitamin biosynthetic process (GO:0009110)	7.18E-05	14	471	2.972399151	61	6609	0.92298381
up pcc1-4	vitamin metabolic process (GO:0006766)	6.66E-06	17	471	3.609341826	71	6609	1.074292631
up pcc1-4	water-soluble vitamin biosynthetic process (GO:0042364)	7.18E-05	14	471	2.972399151	61	6609	0.92298381
up pcc1-4	water-soluble vitamin metabolic process (GO:0006767)	1.29E-05	16	471	3.397027601	67	6609	1.013769103