

Gene no.	EC or KEGG number	Gene name	RAAC1 (SR1)	RAAC2 (WWE3)	RAAC3 (TM7)	RAAC4 (OD1)
Emden Meyerhoff Parnas						
1a	5.3.1.9	Glucose-6-phosphate isomerase		RAAC2_WWE3_811		
1b	K15916	Bifunctional phosphoglucose/phosphomannose isomerase		n/a	RAAC3_TM7_345	n/a
1c	5.3.1.8	Mannose-6-phosphate isomerase		n/a	n/a	RAAC4_OD1_630
2	2.7.1.11	6-phosphofructokinase		RAAC2_WWE3_618	RAAC3_TM7_830	RAAC4_OD1_190
3	4.1.2.13	Fructose-bisphosphate aldolase		RAAC2_WWE3_619	RAAC3_TM7_832	RAAC4_OD1_189
4	5.3.1.1	Triose phosphate isomerase	RAAC1_SR1_246	RAAC2_WWE3_640	RAAC3_TM7_66	RAAC4_OD1_647
5	1.2.1.12	GAPDH/Gap2		RAAC2_WWE3_636	RAAC3_TM7_837	RAAC4_OD1_195
6	2.7.2.3	Phosphoglycerate kinase		RAAC2_WWE3_637	RAAC3_TM7_67	RAAC4_OD1_648
7	1.2.7.6/1.2.1.9	GAPOR/GAPN	RAAC1_SR1_247	RAAC2_WWE3_639	n/a	n/a
8	5.4.2.1	Phosphoglycerate mutase	RAAC1_SR1_139	RAAC2_WWE3_147		RAAC4_OD1_267
9	4.2.1.11	Enolase	RAAC1_SR1_129	RAAC2_WWE3_146		RAAC4_OD1_161
10	2.7.1.40	Pyruvate kinase	RAAC1_SR1_510 RAAC1_SR1_213 RAAC1_SR1_916	RAAC2_WWE3_343	RAAC3_TM7_68	RAAC4_OD1_160
11	2.7.9.1/2.7.9.2	Pyruvate phosphate dikinase/ PEP synthetase	RAAC1_SR1_79	RAAC2_WWE3_145		
Pentose phosphate						
12	1.1.1.49	Glucose-6-phosphate 1-dehydrogenase			RAAC3_TM7_354	RAAC4_OD1_381
13	3.1.1.31	6-phosphogluconolactonase			RAAC3_TM7_356	RAAC4_OD1_383
14	1.1.1.44	6-phosphogluconate dehydrogenase			RAAC3_TM7_355	RAAC4_OD1_382
15	5.3.1.6	Ribose 5-phosphate isomerase		RAAC2_WWE3_612	RAAC3_TM7_836	RAAC4_OD1_194
16	5.1.3.1	Ribulose-phosphate 3-epimerase		RAAC2_WWE3_613	RAAC3_TM7_835	RAAC4_OD1_193
17	2.2.1.1	Transketolase		RAAC2_WWE3_615 RAAC2_WWE3_617	RAAC3_TM7_833 RAAC3_TM7_834	RAAC4_OD1_191 RAAC4_OD1_192
18	2.2.1.2	Transaldolase				
19	4.1.2.9	Phosphoketolase	n/a	n/a	RAAC_TM7_254	n/a
Pyruvate metabolism						
20	2.3.1.54	Pyruvate:formate lyase	RAAC1_SR1_557			
21	1.2.7.1	Pyruvate ferredoxin oxidoreductase (alpha and beta subunits)	RAAC1_SR1_426 RAAC1_SR1_427	RAAC2_WWE3_308 RAAC2_WWE3_309		
Fermentation						
22	2.3.1.8/ 2.3.1.222	Phosphotransacetylase	RAAC1_SR1_552			
23	2.7.2.1	Acetate kinase	RAAC1_SR1_551			
24	6.2.1.13	Acetyl-CoA synthetase (ADP-forming)		RAAC2_WWE3_307		
25	n/a	2-hydroxyacid dehydrogenase superfamily and D-lactate dehydrogenase		RAAC2_WWE3_620	RAAC3_TM7_188	RAAC4_OD1_159
26	1.1.1.38	Malate dehydrogenase (oxaloacetate-decarboxylating)	n/a	n/a	RAAC3_TM7_811	RAAC4_OD1_601
AMP salvage						
27	2.4.2.4/2.4.2.7	AMP/thymidine phosphorylase	RAAC1_SR1_212	n/a	n/a	n/a
28	K03680	Ribose 1,5 P isomerase	RAAC1_SR1_155	n/a	n/a	n/a
29	4.1.1.39	RuBisCO	RAAC1_SR1_647	n/a	n/a	n/a
Arginine deiminase						
30	3.5.3.6	Arginine deiminase	n/a	n/a	RAAC3_TM7_362	n/a
31	2.1.3.3	Ornithine carbamoyl transferase	n/a	n/a	RAAC3_TM7_363	n/a
32	2.7.2.2	Carbamate kinase	n/a	n/a	RAAC3_TM7_365	n/a
Phosphate						
33	3.11.1.2	Phosphonoacetate hydrolase (PhnA)	RAAC1_SR1_292	n/a	n/a	n/a
Electron transport						
34	1.18.1.3	Ferredoxin:NAD oxidoreductase	n/a	RAAC2_WWE3_296	n/a	n/a
35	1.12.99.6	Ni-dependent hydrogenase		RAAC2_WWE3_315 RAAC2_WWE3_316		
36	1.6.99.3	NADH dehydrogenase subunit (type II, putative)	n/a	n/a	RAAC3_TM7_771	n/a
37	1.10.3.10	Cytochrome bo (ubiquinol oxidase)	n/a	n/a	RAAC3_TM7_773- RAAC3_TM7_776	n/a
38		Cytochrome b5	RAAC1_SR1_887	RAAC2_WWE3_836	n/a	n/a
39	K02638	Plastocyanin		RAAC2_WWE3_340		
Proton motive force						
40	3.6.3.14	ATP synthase (F1F0-type)	RAAC1_SR1_65 RAAC1_SR1_67-69 RAAC1_SR1_71-73	RAAC2_WWE3_537- RAAC2_WWE3_543	RAAC3_TM7_654- RAAC3_TM7_661	RAAC4_OD1_168- RAAC4_OD1_175
41	3.6.1.1	Membrane-bound pyrophosphatase (hppA)		RAAC2_WWE3_460		RAAC4_OD1_499