

Table S3. Regulation of expression of genes involved in the central metabolism of bacteria by the three tested complexes.

Locus tag in <i>E. coli</i> BAA-196	Locus tag in <i>S. aureus</i> BAA-39	Gene	<i>E. coli</i> BAA-196						<i>S. aureus</i> BAA-39						Annotation		
			IPC25		IPC33		IPC51		IPC25		IPC33		IPC51				
			Lag	Log	Lag	Log	Lag	Log	Lag	Log	Lag	Log	Lag	Log			
Glycolysis																	
BAA196NC_4208	HMPRNC0000_0863	<i>tpiA</i>							1	1							Triosephosphate isomerase
NA	HMPRNC0000_0860	<i>gapA1</i>							1								NAD-dependent glyceraldehyde-3-phosphate dehydrogenase
Glycolysis & Gluconeogenesis																	
BAA196NC_0782	HMPRNC0000_0861	<i>pgk</i>							1	1		1					Phosphoglycerate kinase
BAA196NC_3009	HMPRNC0000_2679	<i>gpmA</i>						1								-1	Phosphoglyceromutase
Gluconeogenesis																	
BAA196NC_0089	HMPRNC0000_0594	<i>kbl</i>														-1	2-amino-3-ketobutyrate coenzyme A ligase
BAA196NC_1920	HMPRNC0000_1815	<i>gapA</i>														-1	Glyceraldehyde-3-phosphate dehydrogenase
BAA196NC_0316	HMPRNC0000_1928	<i>pkc</i>														-1	Phosphoenolpyruvate carboxykinase
BAA196NC_0477	HMPRNC0000_2889	<i>mdh</i>							1							1	Malate dehydrogenase
BAA196NC_1977	HMPRNC0000_2415	<i>pfkB</i>														-1	6-phosphofructokinase II
BAA196NC_1238	NA	<i>maeB</i>	1	1												1	Malic enzyme
NA	HMPRNC0000_1834	<i>maeB</i>														-1	NADP-dependent malic enzyme
NA	HMPRNC0000_0771	<i>pfkB2</i>														1	1-phosphofructokinase
Entner-Doudoroff (ED) pathway																	
BAA196NC_1997	NA	<i>pps</i>			1	1	1										Phosphoenolpyruvate synthase
Pentose Phosphate Pathway (PPP)																	
BAA196NC_1844	HMPRNC0000_1624	<i>zwf</i>														1	Glucose-6-phosphate 1-dehydrogenase
BAA196NC_1237	NA	<i>talA</i>	1	1													Transaldolase A
BAA196NC_0774	NA	<i>tktA</i>	1	1													Transketolase 1, thiamin-binding
BAA196NC_1236	HMPRNC0000_1439	<i>tktB</i>	1	1													Transketolase 2, thiamin-binding
Glycogen synthesis																	
BAA196NC_0290	NA	<i>glgA</i>														-1	Glycogen synthase
BAA196NC_0664	NA	<i>glgS</i>														-1	Glycogen synthesis protein GlgS
NA	HMPRNC0000_2759	<i>pgm</i>														-1	Phosphoglucosamine mutase / Phosphomannomutase
BAA196NC_1017	NA	<i>csrA</i>														-1	Carbon storage regulator
TCA																	
BAA196NC_2092	HMPRNC0000_1996	<i>fumC</i>														-1	Fumarate hydratase
BAA196NC_2565	HMPRNC0000_1825	<i>icd</i>							1							-1	Isocitrate dehydrogenase
BAA196NC_3030	HMPRNC0000_1313	<i>sucD</i>							1							-1	Succinyl-CoA synthetase subunit alpha
BAA196NC_3031	HMPRNC0000_1312	<i>sucC</i>							1	-1						-1	Succinyl-CoA synthetase subunit beta
BAA196NC_3032	HMPRNC0000_1519	<i>sucB</i>							1	-1						-1	Dihydroliipoamide acetyltransferase
BAA196NC_3033	HMPRNC0000_1520	<i>sucA</i>							1							-1	Alpha-ketoglutarate decarboxylase
NA	HMPRNC0000_0644	<i>merA2</i>														1	Putative Dihydroliipoamide dehydrogenase/Mercuric ion reductase
TCA & glyoxylate bypass																	
BAA196NC_0477	HMPRNC0000_2889	<i>mdh</i>	1	1												1	Malate dehydrogenase
BAA196NC_2425	HMPRNC0000_1449	<i>acnA</i>														-1	Aconitate hydratase
BAA196NC_3038	NA	<i>glfA</i>														1	Citrate synthase
BAA196NC_3620	NA	<i>acnB</i>														1	Aconitate hydratase
Glyoxylate bypass																	
BAA196NC_4123	NA	<i>aceA</i>														1	Isocitrate lyase
BAA196NC_4124	NA	<i>aceB</i>														1	Malate synthase
Aerobic respiration																	
BAA196NC_3034	HMPRNC0000_1198	<i>sdhB</i>							1							-1	Succinate dehydrogenase, FeS subunit
BAA196NC_3035	HMPRNC0000_1197	<i>sdhA</i>							1	1						-1	Succinate dehydrogenase flavoprotein subunit
BAA196NC_3036	NA	<i>sdhD</i>														-1	Succinate dehydrogenase cytochrome b556 small membrane subunit
BAA196NC_3037	HMPRNC0000_1195	<i>sdhC</i>														-1	Succinate dehydrogenase cytochrome b556 large membrane subunit
BAA196NC_3323	NA	<i>cyoA</i>														-1	Cytochrome o ubiquinol oxidase subunit II
BAA196NC_3324	HMPRNC0000_1094	<i>cyoB</i>	1	1												-1	Cytochrome o ubiquinol oxidase subunit I
BAA196NC_3325	NA	<i>cyoC</i>														-1	Cytochrome o ubiquinol oxidase subunit III
BAA196NC_3326	NA	<i>cyoD</i>														-1	Cytochrome o ubiquinol oxidase subunit IV
BAA196NC_3327	HMPRNC0000_1158	<i>cyoE</i>	1	1												1	Protoheme IX farnesyltransferase
BAA196NC_3025	HMPRNC0000_1124	<i>cydA</i>														1	Cytochrome d terminal oxidase, subunit I
BAA196NC_3024	NA	<i>cydB</i>														-1	Cytochrome d terminal oxidase, subunit II
NA	HMPRNC0000_1095	<i>qoxA</i>														-1	Cytochrome aa3-600 menaquinol oxidase subunit II
NA	HMPRNC0000_1093	<i>qoxD</i>														-1	Cytochrome aa3-600 menaquinol oxidase subunit IV
BAA196NC_1411	NA	<i>nuoC</i>														-1	NADH:ubiquinone oxidoreductase, chain C,D
BAA196NC_1412	NA	<i>nuoE</i>														-1	NADH dehydrogenase subunit E
BAA196NC_1414	NA	<i>nuoG</i>														-1	NADH dehydrogenase subunit G
BAA196NC_2594	HMPRNC0000_0966	<i>ndh</i>														1	Respiratory NADH dehydrogenase 2/cupric reductase
Anaerobic respiration & fermentation																	
BAA196NC_2425	HMPRNC0000_1449	<i>acnA</i>	1	1												-1	Aconitate hydratase
BAA196NC_3620	NA	<i>acnB</i>	1	1												-1	Aconitate hydratase
BAA196NC_2473	HMPRNC0000_2652	<i>narH</i>														-1	Nitrate reductase 1, beta (Fe-S) subunit
BAA196NC_2474	HMPRNC0000_2655	<i>narG</i>	1	1					1	1						-1	Nitrate reductase 1, alpha subunit
BAA196NC_2475	HMPRNC0000_2644	<i>narK</i>														1	Nitrate/nitrite transporter
BAA196NC_2478	HMPRNC0000_2068	<i>narL</i>														1	DNA-binding response regulator in two-component regulatory system with NarX
BAA196NC_2233	NA	<i>narZ</i>														-1	Nitrate reductase 2 (NRZ), alpha subunit
BAA196NC_2234	NA	<i>narY</i>														-1	Nitrate reductase 2 (NRZ), beta subunit
BAA196NC_2477	NA	<i>narX</i>														1	Sensory histidine kinase in two-component regulatory system with NarL
BAA196NC_0353	HMPRNC0000_2659	<i>nirB</i>														-1	Nitrite reductase, large subunit, NAD(P)H-binding
BAA196NC_1495	NA	<i>napA</i>														-1	Nitrate reductase, periplasmic, large subunit

BAA196NC_1496	NA	<i>napG</i>							Quinol dehydrogenase periplasmic component
BAA196NC_1499	NA	<i>napC</i>							Nitrate reductase, cytochrome c-type, periplasmic
BAA196NC_2027	NA	<i>fumD</i>	-1	-1					Fumarate D
BAA196NC_3977	HMPRNC0000_1197	<i>frdA</i>							Fumarate reductase
BAA196NC_3978	HMPRNC0000_1198	<i>frdB</i>							Fumarate reductase (anaerobic), Fe-S subunit
BAA196NC_4234	NA	<i>fdoG</i>	1	1	1				Formate dehydrogenase-O, large subunit
BAA196NC_4235	NA	<i>fdoH</i>							Formate dehydrogenase-O, Fe-S subunit
BAA196NC_4236	NA	<i>fdol</i>	1	1					Formate dehydrogenase-O, cytochrome b556 subunit
BAA196NC_4237	NA	<i>fdhE</i>							Formate dehydrogenase accessory protein FdhE
BAA196NC_0120	HMPRNC0000_0169	<i>aldB</i>							Aldehyde dehydrogenase B
	NA	<i>gapA1</i>							NAD-dependent glyceraldehyde-3-phosphate dehydrogenase
BAA196NC_0094	HMPRNC0000_0864	<i>gpmI</i>							Phosphoglyceromutase
BAA196NC_3009	HMPRNC0000_2679	<i>gpmA</i>							Phosphoglyceromutase
Acetate & pyruvate metabolism									
BAA196NC_1400	HMPRNC0000_1846	<i>ackA</i>							Acetate kinase
BAA196NC_1399	NA	<i>pta</i>							Phosphate acetyltransferase
BAA196NC_0596	NA	<i>tdcD</i>							Propionate kinase/acetate kinase C, anaerobic
BAA196NC_0597	NA	<i>tdcE</i>							Pyruvate formate-lyase 4/2-ketobutyrate formate-lyase
BAA196NC_2797	HMPRNC0000_0241	<i>pfkB</i>							Pyruvate formate lyase I
	NA	HMPRNC0000_0178							Acyl-CoA dehydrogenase, short-chain specific
BAA196NC_4065	HMPRNC0000_1877	<i>acs</i>	1	1					Acetyl-CoA synthetase
	NA	HMPRNC0000_1876							Acetyl-CoA synthetase
Peptidoglycan metabolism associated with cell growth and division									
BAA196NC_3652	HMPRNC0000_1230	<i>ftsI</i>							Transpeptidase involved in septal peptidoglycan synthesis (penicillin-binding protein 3)
BAA196NC_3647	HMPRNC0000_1154	<i>ftsW</i>	-1	-1	-1				Integral membrane protein involved in stabilizing FtsZ ring during cell division
BAA196NC_1917	NA	<i>mipA</i>							scaffolding protein for murein synthesizing machinery
BAA196NC_0969	NA	<i>nlpD</i>							Predicted outer membrane lipoprotein
BAA196NC_2519	NA	<i>dadA</i>							D-amino acid dehydrogenase small subunit
BAA196NC_2518	NA	<i>dadX</i>							alanine racemase
BAA196NC_2883	NA	<i>ybiS</i>							L,D-transpeptidase ldtB
BAA196NC_3530	NA	<i>mltD</i>							Predicted membrane-bound lytic murein transglycosylase D
BAA196NC_2025	NA	<i>lpp</i>							Murein lipoprotein
BAA196NC_1524	NA	<i>spr (mepS)</i>							Predicted peptidase, outer membrane lipoprotein
BAA196NC_3117	NA	<i>dacA</i>							D-alanyl-D-alanine carboxypeptidase (penicillin-binding protein 5)
BAA196NC_4381	HMPRNC0000_0521	<i>glmU</i>							Bifunctional N-acetylglucosamine-1-phosphate uridyltransferase/glucosamine-1-phosphate acetyltransferase
KEGG predicted Peptidoglycan synthesis									
BAA196NC_0523	HMPRNC0000_2292	<i>murA1</i>							UDP-N-acetylglucosamine 1-carboxyvinyltransferase
	NA	HMPRNC0000_2320							UDP-N-acetylglucosamine 1-carboxyvinyltransferase
BAA196NC_4159	HMPRNC0000_0815	<i>murB</i>							UDP-N-acetylenolpyruvoylglucosamine reductase
BAA196NC_3645	HMPRNC0000_1885	<i>murC</i>							UDP-N-acetylmuramate--L-alanine ligase
BAA196NC_3648	HMPRNC0000_1232	<i>murD</i>							UDP-N-acetylmuramoylalanine--D-glutamate ligase
	NA	HMPRNC0000_2076							putative amino acid ligase found clustered with an amidotransferase
BAA196NC_3650	HMPRNC0000_2269	<i>murF</i>							UDP-N-acetylmuramoyl-tripeptide--D-alanyl-D-alanine ligase
BAA196NC_3649	HMPRNC0000_1231	<i>mraY</i>							Phospho-N-acetylmuramoyl-pentapeptide- transferase
	NA	HMPRNC0000_1526							UDP-N-acetylglucosamine--N-acetylmuramyl- (pentapeptide) pyrophosphoryl-undecaprenol N-acetylglucosamine transferase
	NA	HMPRNC0000_2479							Lipid II:glycine glycytransferase
	NA	HMPRNC0000_1475							tRNA-dependent lipid II-Gly glycytransferase and FemA
	NA	HMPRNC0000_1476							tRNA-dependent lipid II-GlyGly glycytransferase
	NA	HMPRNC0000_1872							Multimodular transpeptidase-transglycosylase
	NA	HMPRNC0000_1560							Multimodular transpeptidase-transglycosylase / Penicillin-binding protein 1A/1B (PBP1)
BAA196NC_4160	HMPRNC0000_1199	<i>murI</i>							Glutamate racemase