

**Table S9**

<b>GeneFamily</b>	<b>Coefficient</b>	<b>AIC</b>	<b>P-value</b>	<b>FDR</b>	<b>Annotation</b>
<b>TIGR01496</b>	-3.80	64.47	0	0	dihydropteroate synthase
<b>TIGR01455</b>	-2.85	37.16	4.10E-94	5.89E-91	phosphoglucosamine mutase
<b>TIGR01629</b>	1.20	140.64	6.87E-30	6.57E-27	phage/plasmid replication protein, gene II/X family
<b>TIGR03434</b>	1.04	64.56	1.15E-11	8.26E-09	Acidobacterial duplicated orphan permease
<b>TIGR01642</b>	1.04	35.96	4.88E-10	2.80E-07	U2 snRNP auxilliary factor, large subunit, splicing factor
<b>TIGR02794</b>	0.80	48.41	1.31E-07	6.28E-05	protein TolA
<b>TIGR02763</b>	-0.74	80.93	7.20E-07	0.000295	scaffolding protein
<b>TIGR02416</b>	21.86	13.50	1.29E-05	0.004627	carbon-monoxide dehydrogenase, large subunit
<b>TIGR02082</b>	0.99	28.69	2.99E-05	0.009437	methionine synthase
<b>TIGR00048</b>	-1.01	42.28	3.29E-05	0.009437	radical SAM enzyme, Cfr family
<b>TIGR03436</b>	2.05	28.49	7.14E-05	0.018616	VWFA-related Acidobacterial domain
<b>TIGR01652</b>	-19.92	21.58	9.13E-05	0.021837	phospholipid-translocating P-type ATPase, flippase
<b>TIGR01622</b>	1.01	25.02	0.000414	0.091362	splicing factor, CC1-like family
<b>TIGR02294</b>	1.23	29.57	0.000454	0.093133	nickel ABC transporter, periplasmic nickel-binding protein
<b>TIGR03619</b>	21.41	12.18	0.000502	0.093861	probable F420-dependent oxidoreductase, Rv2161c family
<b>TIGR02866</b>	1.70	24.37	0.000523	0.093861	cytochrome c oxidase, subunit II
<b>TIGR00348</b>	-1.03	27.08	0.000557	0.09407	type I site-specific deoxyribonuclease, HsdR family