Supplementary Table 3: Genes differentially expressed at the basal level (±2-fold) in *mutS* mutant *E. coli* compared to wildtype. Only genes for which ANOVA $p \leq 0.05$ are listed.

Amino acid transport and metabolism				
Gene	**Blattner Number**	**Signal Log Ratio**	**ANOVA p-value**	**Gene Product and Function**
gadB	b1493	1.10	0.000	glutamate decarboxylase isozyme
trpA	b1260	1.71	0.048	tryptophan synthase, alpha protein
trpB	b1261	1.65	0.027	tryptophan synthase, beta protein
trpC	b1262	1.52	0.013	N-(5-phosphoribosyl)anthranilate isomerase and indole-3-glycerolphosphate synthetase
trpD	b1263	1.49	0.016	anthranilate synthase component II, glutamine amidotransferase and phosphoribosylanthrani
trpE	b1264	1.13	0.023	anthranilate synthase component I

Carbohydrate transport and metabolism				
Gene	**Blattner Number**	**Signal Log Ratio**	**ANOVA p-value**	**Gene Product and Function**
eno	b2779	1.12	0.052	enolase
fba	b2925	1.12	0.009	fructose-bisphosphate aldolase, class II
malE	b4034	1.60	0.017	periplasmic maltose-binding protein; substrate recognition for transport and chemotaxis
malK	b4035	1.35	0.048	ATP-binding component of transport system for maltose

Cell motility				
Gene	**Blattner Number**	**Signal Log Ratio**	**ANOVA p-value**	**Gene Product and Function**
flgE	b1076	1.25	0.027	flagellar biosynthesis, hook protein
fliC	b1923	1.26	0.045	flagellar biosynthesis; flagellin, filament structural protein

Energy production and conversion				
Gene	**Blattner Number**	**Signal Log Ratio**	**ANOVA p-value**	**Gene Product and Function**
ppa	b4226	1.13	0.033	inorganic pyrophosphatase

Replication, recombination and repair				
Gene	**Blattner Number**	**Signal Log Ratio**	**ANOVA p-value**	**Gene Product and Function**
dps	b0812	1.02	0.029	global regulator, starvation conditions

Translation				
Gene	**Blattner Number**	**Signal Log Ratio**	**ANOVA p-value**	**Gene Product and Function**
rplO	b3301	1.42	0.052	50S ribosomal subunit protein L15

Unclassified, unknown or general function prediction only				
Gene	**Blattner Number**	**Signal Log Ratio**	**ANOVA p-value**	**Gene Product and Function**
lamB	b4036	2.00	0.039	phage lambda receptor protein; maltose high-affinity receptor
yfiD	b2579	1.20	0.009	putative formate acetyltransferase