

Table S4. Select genes with fitness defects

Organism	locusId (from supplemental webpage)	RefSeq locus tag	Description	Note
Cola	Echvi_4036	Echvi_4036	Glucose-6-phosphate isomerase	Glucose catabolism
Pedo557	GFF1995	CA265_RS09810	Glucose-6-phosphate 1-dehydrogenase (EC1.1.1.49)	Glucose catabolism
Brev2	Brev2_2892	A4249_14590	Glucose-6-phosphate isomerase (EC 5.3.1.9)	Glucose catabolism
Brev2	Brev2_2575	A4249_12985	GDP-mannose 4,6-dehydratase (EC 4.2.1.47)	Capsular gene cluster
Brev2	Brev2_2583	A4249_13025	dTDP-glucose 4,6-dehydratase (EC 4.2.1.46)	Capsular gene cluster
Brev2	Brev2_2584	A4249_13030	Glycosyltransferase (EC 2.4.1.-)	Capsular gene cluster
Brev2	Brev2_2585	A4249_13035	Glycosyltransferase	Capsular gene cluster
Brev2	Brev2_2587	A4249_13040	Hypothetical protein	Capsular gene cluster
Brev2	Brev2_2589	A4249_13050	Putative mannosyltransferase	Capsular gene cluster
Brev2	Brev2_2592	A4249_13065	Mannose-1-phosphate guanylyltransferase (GDP)(EC 2.7.7.22)	Capsular gene cluster
Brev2	Brev2_2594	A4249_13075	Phosphoglucosamine mutase (EC 5.4.2.10) /Phosphomannomutase (EC 5.4.2.8)	Capsular gene cluster
Sphingo3	GFF358	CA262_01810	Capsular polysaccharide glycosyltransferase biosynthesis protein WcbB	Capsular gene cluster
Sphingo3	GFF359	CA262_01815	Capsular polysaccharide export system protein KpsC	Capsular gene cluster
Sphingo3	GFF360	CA262_01820	Capsular polysaccharide export system protein KpsS	Capsular gene cluster
Sphingo3	GFF1944	CA262_09760	Phosphogluconate dehydratase (EC 4.2.1.12)	Glucose catabolism
Sphingo3	GFF3426	CA262_17080	Predicted mannose transporter, GGP family, 48% identity with BAB2_0184 (glucose transporter in Brucella)	Glucose catabolism
Ponti	GFF2779	CA264_12350	Alpha-1,3-N-acetylgalactosamine transferase PglA (EC 2.4.1.-)	Polysaccharide gene cluster
Ponti	GFF2780	CA264_12355	hypothetical protein	Polysaccharide gene cluster
Ponti	GFF2782	CA264_12365	Asparagine synthetase [glutamine-hydrolyzing] (EC 6.3.5.4)	Polysaccharide gene cluster
Ponti	GFF2783	CA264_12370	hypothetical protein	Polysaccharide gene cluster

Ponti	GFF2784	CA264_12375	glycosyl transferase, group 1 family protein	Polysaccharide gene cluster
Ponti	GFF2786	CA264_12385	Glycosyl transferase, group 1	Polysaccharide gene cluster
Ponti	GFF2787	CA264_12390	Glycosyltransferase (EC 2.4.1.-)	Polysaccharide gene cluster
Ponti	GFF2791	CA264_12415	hypothetical protein	Polysaccharide gene cluster
Ponti	GFF2793	CA264_12425	N-Acetylneuraminate cytidyltransferase (EC 2.7.7.43)	Polysaccharide gene cluster