

Table S2. Comparison of genes curated as essential after growth in BHI in this study compared to previous study of essentiality in *S. aureus*

Locus	Product	Essential in BHI by TnSeq ¹	Essential in <i>S.aureus</i> list ²
SAOUHSC_00022	* hypothetical protein		
SAOUHSC_00486	* hypothetical protein		
SAOUHSC_01239	* hypothetical protein		
SAOUHSC_01857	* hypothetical protein		
SAOUHSC_02383	* hypothetical protein		
SAOUHSC_00889	* monovalent cation/H+ antiporter subunit A		
SAOUHSC_01263	* phosphodiesterase		
SAOUHSC_01203	* ribonuclease III		
SAOUHSC_01698	hypothetical protein		
SAOUHSC_00017	50S ribosomal protein L9		
SAOUHSC_00985	naphthoate synthase		
SAOUHSC_01487	ubiquinone/menaquinone biosynthesis methyltransferase		
SAOUHSC_00374	inosine-5'-monophosphate dehydrogenase		
SAOUHSC_00884	putative monovalent cation/H+ antiporter subunit F		
SAOUHSC_00886	putative monovalent cation/H+ antiporter subunit D		
SAOUHSC_00887	putative monovalent cation/H+ antiporter subunit C		
SAOUHSC_00888	putative monovalent cation/H+ antiporter subunit B		
SAOUHSC_01483	chorismate synthase		
SAOUHSC_01772	delta-aminolevulinic acid dehydratase		
SAOUHSC_01773	uroporphyrinogen III synthase		
SAOUHSC_01774	porphobilinogen deaminase		
SAOUHSC_00023	hypothetical protein		
SAOUHSC_00038	hypothetical protein		
SAOUHSC_00100	deoxyribose-phosphate aldolase		
SAOUHSC_00112	IS200 family transposase		
SAOUHSC_00275	hypothetical protein		
SAOUHSC_00396	hypothetical protein		
SAOUHSC_00453	hypothetical protein		
SAOUHSC_00473	hypothetical protein		
SAOUHSC_00481	hypothetical protein		
SAOUHSC_00526	putative ribosomal protein L7Ae-like		
SAOUHSC_00573	putative heme peroxidase		
SAOUHSC_00610	hypothetical protein		
SAOUHSC_00680	hypothetical protein		
SAOUHSC_00735	hypothetical protein		
SAOUHSC_00778	hypothetical protein		
SAOUHSC_00786	hypothetical protein		
SAOUHSC_00794	glycolytic operon regulator		
SAOUHSC_00819	hypothetical protein		
SAOUHSC_00857	hypothetical protein		
SAOUHSC_00867	hypothetical protein		
SAOUHSC_00885	putative monovalent cation/H+ antiporter subunit E		
SAOUHSC_00896	hypothetical protein		
SAOUHSC_00938	hypothetical protein		
SAOUHSC_00939	hypothetical protein		
SAOUHSC_00981	hypothetical protein		
SAOUHSC_01003	hypothetical protein		
SAOUHSC_01023	hypothetical protein		
SAOUHSC_01118	hypothetical protein		

SAOUHSC_00018	replicative DNA helicase		
SAOUHSC_00020	two-component response regulator		
SAOUHSC_00021	sensory box histidine kinase VicK		
SAOUHSC_00223	teichoic acid biosynthesis protein F		
SAOUHSC_00225	2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase		
SAOUHSC_00226	hypothetical protein		
SAOUHSC_00227	hypothetical protein		
SAOUHSC_00345	hypothetical protein		
SAOUHSC_00348	30S ribosomal protein S6		
SAOUHSC_00349	bacteriophage L54a, single-stranded DNA binding protein		
SAOUHSC_00375	GMP synthase		
SAOUHSC_00442	DNA polymerase III subunits gamma and tau		
SAOUHSC_00444	hypothetical protein		
SAOUHSC_00451	thymidylate kinase		
SAOUHSC_00454	DNA polymerase III subunit delta'		
SAOUHSC_00461	methionyl-tRNA synthetase		
SAOUHSC_00471	bifunctional N-acetylglucosamine-1-phosphate uridyltransferase/glucosami		
SAOUHSC_00472	ribose-phosphate pyrophosphokinase		
SAOUHSC_00475	peptidyl-tRNA hydrolase		
SAOUHSC_00482	hypothetical protein		
SAOUHSC_00484	hypothetical protein		
SAOUHSC_00489	dihydropteroate synthase		
SAOUHSC_00490	dihydroneopterin aldolase		
SAOUHSC_00491	2-amino-4-hydroxy-6- hydroxymethyldihydropteridine pyrophosphokinase		
SAOUHSC_00493	lysyl-tRNA synthetase		
SAOUHSC_00509	glutamyl-tRNA synthetase		
SAOUHSC_00510	serine acetyltransferase		
SAOUHSC_00511	cysteinyl-tRNA synthetase		
SAOUHSC_00516	preprotein translocase subunit SecE		
SAOUHSC_00518	50S ribosomal protein L11		
SAOUHSC_00519	50S ribosomal protein L1		
SAOUHSC_00520	50S ribosomal protein L10		
SAOUHSC_00521	50S ribosomal protein L7/L12		
SAOUHSC_00524	DNA-directed RNA polymerase subunit beta		
SAOUHSC_00525	DNA-directed RNA polymerase subunit beta'		
SAOUHSC_00527	30S ribosomal protein S12		
SAOUHSC_00528	30S ribosomal protein S7		
SAOUHSC_00529	elongation factor G		
SAOUHSC_00530	elongation factor Tu		
SAOUHSC_00549	putative GTP cyclohydrolase		
SAOUHSC_00574	phosphotransacetylase		
SAOUHSC_00577	mevalonate kinase		
SAOUHSC_00578	mevalonate diphosphate decarboxylase		
SAOUHSC_00579	phosphomevalonate kinase		
SAOUHSC_00611	arginyl-tRNA synthetase		
SAOUHSC_00640	teichoic acid biosynthesis protein		
SAOUHSC_00641	teichoic acids export protein ATP-binding subunit		
SAOUHSC_00642	teichoic acid biosynthesis protein		
SAOUHSC_00643	tagB protein		
SAOUHSC_00728	hypothetical protein		
SAOUHSC_00741	ribonucleotide reductase stimulatory protein		
SAOUHSC_00742	ribonucleotide-diphosphate reductase subunit alpha		
SAOUHSC_00743	ribonucleotide-diphosphate reductase subunit beta		

SAOUHSC_02507	50S ribosomal protein L22		
SAOUHSC_02508	30S ribosomal protein S19		
SAOUHSC_02509	50S ribosomal protein L2		
SAOUHSC_02510	50S ribosomal protein L23		
SAOUHSC_02511	50S ribosomal protein L4		
SAOUHSC_02512	50S ribosomal protein L3		
SAOUHSC_02527	FmhB protein		
SAOUHSC_02571	secretory antigen		
SAOUHSC_02623	isopentenyl pyrophosphate isomerase		
SAOUHSC_02720	hypothetical protein		
SAOUHSC_02860	HMG-CoA synthase		
SAOUHSC_03054	ribonuclease P		
SAOUHSC_03055	50S ribosomal protein L34		

¹ Genes that met essential criteria after growth in BHI in this study

² Gene list curated as essential in *S. aureus* by Chaudhuri et al (BMC Genomics 2009)

* Selected for validation by antisense in this study

Essential genes (dark gray) or Fitness compromised genes (light gray) are shown here (white=not-essential or compromised in condition)