

Table S4. Disrupted genes that resulted from SSR-mediated frameshift mutations in *B. mallei* and *B. pseudomallei*.

IS407A	disrupted by IS407A
genomic-del	removed by large genomic deletion
o	disrupted gene
absent	either deletion in the strain or insertion in K96243

locus	protein	<i>B. mallei</i>										<i>B. pseudomallei</i>							
		ATCC2334	FMH	JHU	SB8 horse	ATCC 10399	10229	10247	2002721280	SAVP1	PRL-20	1106a	1106b	1710a	1710b	406e	668	Pasteur	S13
BPSL0006	hypothetical protein BPSL0006	o	o	o	o	o	o	o	o	o	o								
BPSL0035	hypothetical protein BPSL0035																	o	
BPSL0223	putative acyl-CoA dehydrogenase	o	o	o	o	o	o	o	o	o	o								
BPSL0258	hypothetical protein BPSL0258	o	o	o	o	o	o	o	o	o	o								
BPSL0269	flagellar basal body P-ring biosynthesis protein	o	o	o	o	o	o	o	o	o	o								
BPSL0276	flagellar L-ring protein precursor	o	o	o	o														
BPSL0308	hypothetical protein BPSL0308					o													
BPSL0321	hypothetical protein BPSL0321							o											
BPSL0347	putative insertion element protein																o	absent	o
BPSL0371	acetyl-CoA acetyltransferase																o		
BPSL0377	hypothetical protein BPSL0377																		
BPSL0405	hypothetical protein BPSL0405																		
BPSL0426	C4-dicarboxylate transport sensor protein	o	o	o	o	o	o	o	genomic-del	o	o								
BPSL0492	hypothetical protein BPSL0492																o	o	o
BPSL0578	dienelactone hydrolase family protein																		
BPSL0589	hypothetical protein BPSL0589																		
BPSL0662	hypothetical protein BPSL0662	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSL0681	hypothetical protein BPSL0681	o	o	o	o	o	o	o	o	o	o								
BPSL0703	putative two-component sensor histidine kinase																		o
BPSL0726	hypothetical protein BPSL0726																		
BPSL0735	hypothetical protein BPSL0735																		
BPSL0787	hypothetical protein BPSL0787	o	o	o	o														
BPSL0828	putative tagatose 6-phosphate kinase protein	o	o	o	o	o	o	o	o	o	o								
BPSL0860	putative hydrolase											o							
BPSL0862	putative methylated-DNA--protein-cysteine methyltransferase											o	o	o	o	o	o	o	o
BPSL0878	tetraacyldisaccharide 4'-kinase	o																	
BPSL0882	putative chromate transporter protein		o																
BPSL0898a	ATP-dependent Clp protease adaptor protein ClpS								o										
BPSL0917	putative DNA repair protein											o					absent		
BPSL0922	putative ABC transporter ATP-binding protein									genomic-del	o						absent		
BPSL0954	hypothetical protein BPSL0954											o	o				absent	o	
BPSL0967	hypothetical protein BPSL0967											o					absent		
BPSL0970	putative isoleucine biosynthesis transcript	o	o	o	o	o	o	o	o	o	o								
BPSL0976	putative outer membrane receptor protein											o							
BPSL0977	putative transmembrane ABC transporter permease												o						
BPSL1007	putative fimbriae usher protein																		
BPSL1014	hypothetical protein BPSL1014																o		
BPSL1038a	hypothetical protein BPSL1038a																		
BPSL1041	hypothetical protein BPSL1041																		
BPSL1114	putative ATP-dependent RNA helicase 2																		
BPSL1117	DNA polymerase III subunit alpha																o		
BPSL1128	putative lipoprotein																o		
BPSL1133	hypothetical protein BPSL1133																o		o
BPSL1174	two-component system, sensor kinase part	o	o	o	o	o	o	o	o	o	o								
BPSL1179	hypothetical protein BPSL1179											o							

	genomic-del										degenomic-del									
	IS407A	IS408A	IS409A	IS410A	IS411A	IS412A	IS413A	IS414A	IS415A	IS416A	absent	absent	absent	absent	o	absent	absent	absent	absent	
BPSL2784 hypothetical protein BPSL2784																				
BPSL2827 molecular chaperone DnaK																				
BPSL2832 heat-inducible transcription repressor																				
BPSL2862 hypothetical protein BPSL2862																				
BPSL2863 putative ferritin DPS-family DNA binding protein																				
BPSL2901 putative lipoprotein																				
BPSL2905 hypothetical protein BPSL2905																				
BPSL2933 putative regulatory protein																				
BPSL2944 ureidoglycolate hydrolase																				
BPSL2996 hypoxanthine-guanine phosphoribosyltransferase																				
BPSL3103 hypothetical protein BPSL3103																				
BPSL3104 hypothetical protein BPSL3104																				
BPSL3118 putative restriction modification system																				
BPSL3119 putative stringent starvation protein B																				
BPSL3156 hypothetical protein BPSL3156																				
BPSL3205 50S ribosomal protein L29																				
BPSL3225 50S ribosomal protein L11																				
BPSL3229 hypothetical protein BPSL3229																				
BPSL3237 hypothetical protein BPSL3237	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSL3237 hypothetical protein BPSL3237	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSL3293 4-hydroxyphenylpyruvate dioxygenase																				
BPSL3293 flagellar biosynthesis protein																				
BPSL3301 chemotaxis-specific methylesterase																				
BPSL336 putative lipoprotein																				
BPSL337 putative hydrolase																				
BPSL338 putative methyl-accepting chemotaxis protein																				
BPSL3375 hypothetical protein BPSL3375																				
BPSL3378 putative heavy metal resistance membrane ATPase																				
BPSL3410 putative branched-chain amino acid ABC transporter																				
BPSL3413 hypothetical protein BPSL3413																				
BPSS0003 hypothetical protein BPSS0003	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSS0061 alpha-ketoglutarate permease																				
BPSS0065 hypothetical protein BPSS0065																				
BPSS0068 hypothetical protein BPSS0068																				
BPSS0078 hypothetical protein BPSS0078	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSS0078 hypothetical protein BPSS0078	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSS0128 pyruvate kinase																				
BPSS0147 transporter protein	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSS0147 transporter protein	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSS0167 hypothetical protein BPSS0167	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSS0174 chaperone	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSS0179 hypothetical protein BPSS0179	o																			
BPSS0190 O-acetylhomoserine																				
BPSS0202 hypothetical protein BPSS0202																				
BPSS0208 aconitate hydratase																				
BPSS0216 hypothetical protein BPSS0216	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
BPSS0224 cation-transporting ATPase membrane protein																				
BPSS0225 hypothetical protein BPSS0225																				
BPSS0237 chromosome replication initiation inhibitor protein																				
BPSS0238 penicillin-binding protein																				
BPSS0252 porin membrane protein																				
BPSS0262 aminoglycoside 6'-N-acetyltransferase																				
BPSS0286 hypothetical protein BPSS0286																				
BPSS0306 multifunctional polyketide-peptide synthase																				
BPSS0311 multifunctional polyketide-peptide synthase																				
BPSS0320 GntR-family transcriptional regulator																				
BPSS0338 insertion element protein																				
	IS407A	IS408A	IS409A	IS410A	IS411A	IS412A	IS413A	IS414A	IS415A	IS416A	absent	absent	absent	absent	o	absent	absent	absent	absent	absent

					genomic-del				o		absent
BPSS0343 aminotransferase protein					genomic-del				o		
BPSS0349 NADP-dependent glyceraldehyde-3-phosphate dehydrogenase					genomic-del				o		
BPSS0359 hypothetical protein BPSS0359					o						
BPSS0374 hypothetical protein BPSS0374					o						
BPSS0376 hypothetical protein BPSS0376					o						
BPSS0400 bacteriophage protein					o						
BPSS0403 hypothetical protein BPSS0403					o						
BPSS0404 methionine utilization protein					o						
BPSS0406 hypothetical protein BPSS0406					o						
BPSS0407 insertion element hypothetical protein					o						
BPSS0407 insertion element hypothetical protein					o						
BPSS0412 hypothetical protein BPSS0412					o						
BPSS0452 phosphoesterase					o						
BPSS0480 hypothetical protein BPSS0480					o						
BPSS0508 thiamine pyrophosphate enzyme					o						
BPSS0510 hypothetical protein BPSS0510					o						
BPSS0512 hypothetical protein BPSS0512					o						
BPSS0514 acetyl-CoA hydrolase/transferase					o						
BPSS0522 ATPase					o						
BPSS0532 hypothetical protein BPSS0532					o						
BPSS0536 3-hydroxydecanoyl-ACP:CoA transacylase					o						
BPSS0539 hypothetical protein BPSS0539					o						
BPSS0541 HlyD family secretion protein					o						
BPSS0581 salicylate biosynthesis isochorismate synthase					o						
BPSS0655 hypothetical protein BPSS0655					o						
BPSS0664 response regulator protein					o						
BPSS0681 AraC family regulatory protein					o						
BPSS0686 hypothetical protein BPSS0686a					o						
BPSS0699 AraC family regulatory protein					o						
BPSS0703 transmembrane ABC transporter protein					o						
BPSS0733 methyl-accepting chemotaxis protein					o						
BPSS0733 methyl-accepting chemotaxis protein					o						
BPSS0735 glycosyl transferase					o						
BPSS0737 hypothetical protein BPSS0737					o						
BPSS0781 feruloyl-CoA synthase					o						
BPSS0788 transport system permease protein					o						
BPSS0812 hypothetical protein BPSS0812					o						
BPSS0816 penicillin-binding protein					o						
BPSS0820 tRNA synthetase					o						
BPSS0820 tRNA synthetase					o						
BPSS0837 hypothetical protein BPSS0837					o						
BPSS0847 hypothetical protein BPSS0847					o						
BPSS0857 hypothetical protein BPSS0857					o						
BPSS0857 hypothetical protein BPSS0857					o						
BPSS0874 hypothetical protein BPSS0874					o						
BPSS0875 LysE type translocator					o						
BPSS0879 porin protein					o						
BPSS0885 N-acylhomoserine lactone synthase					o						
BPSS0899 hydrolase					o						
BPSS0902 hypothetical protein BPSS0902					o						
BPSS0919 hypothetical protein BPSS0919					o						
BPSS0933 methyl-accepting chemotaxis protein					o						
BPSS0933 methyl-accepting chemotaxis protein					o						
BPSS0936 hypothetical protein BPSS0936					o						
BPSS0940 ornithine cyclodeaminase					o						
BPSS0946 beta-lactamase precursor					o						
BPSS0993 catalase precursor					o						
BPSS0995 AraC family regulatory protein					o						

BPSS1006	polyketide synthase
BPSS1006	polyketide synthase
BPSS1007	polyketide synthase
BPSS1007	polyketide synthase
BPSS1007	polyketide synthase
BPSS1008	polyketide synthase
BPSS1008	polyketide synthase
BPSS1020	Arac family transcriptional regulator
BPSS1028	iron uptake regulator protein
BPSS1084	bacteriophage major tail sheath protein
BPSS1089	bacteriophage late control gene D protein
BPSS1094	hypothetical protein BPSS1094
BPSS1103	periplasmic thiamine binding protein
BPSS1115	hypothetical protein BPSS1115
BPSS1116	hypothetical protein BPSS1116
BPSS1120	outer membrane efflux protein
BPSS1174	non-ribosomal peptide/polyketide synthase
BPSS1193	non-ribosomal peptide/polyketide synthase
BPSS1194	peptide synthase/polyketide synthase
BPSS1213	hypothetical protein BPSS1213
BPSS1224	hypothetical protein BPSS1224
BPSS1240	penicillin-binding protein
BPSS1243	nitrite reductase (NAD(P)H)
BPSS1253	LysR family transcriptional regulator
BPSS1255	LysR family transcriptional regulator
BPSS1266	peptide/siderophore synthetase
BPSS1270	hypothetical protein BPSS1270
BPSS1282	lipoprotein
BPSS1299	LysR family transcriptional regulator
BPSS1318	D-lactate dehydrogenase
BPSS1327	MFS family sugar transporter protein
BPSS1332	cytochrome-c methylamine utilization protein
BPSS1341	cysteine desulfurase
BPSS1347	HlyD family efflux pump protein
BPSS1347	HlyD family efflux pump protein
BPSS1347	HlyD family efflux pump protein
BPSS1348	outer membrane efflux protein
BPSS1360	two-component sensor kinase protein
BPSS1366	sarcosine oxidase gamma subunit
BPSS1379	transmembrane transporter protein
BPSS1381	transmembrane phospholipase protein
BPSS1382	Endonuclease/Exonuclease/phosphatase
BPSS1421	hypothetical protein BPSS1421
BPSS1422	hypothetical protein BPSS1422
BPSS1445	biotin carboxylase
BPSS1458	MFS family transport protein
BPSS1464	transmembrane NADPH flavoprotein
BPSS1467	aminotransferase protein
BPSS1474	DeoR family transcriptional regulator
BPSS1494	two-component response regulator
BPSS1495	two-component regulator sensor kinase
BPSS1502	Clp-type ATPase chaperone protein
BPSS1511	hypothetical protein BPSS1511
BPSS1513	hypothetical protein BPSS1513
BPSS1541	type III secretion system ATPase
BPSS1545	Type III secretion system protein
BPSS1545	Type III secretion system protein
BPSS1579	hypothetical protein BPSS1579

BPSS2326 flavin-binding monooxygenase-like protein

BPSS2327 cytochrome P450 family protein

BPSS2328 multi-domain beta keto-acyl synthase