

Table S2: Representative PspA partner domain homologs					
Gene, Lineage info and Genomic Contexts grouped by Domain Architectures					
Gene Info		Lineage Info			GenContext
AccNum	GeneName	Species	Lineage		
DUF1700-ahelical+FTSW_RODA_SPOVE					
CAC98500.1	lmo0421	Listeria monocytogenes EGDe	bacteria>firmicutes	SIGMA-HTH->PADR-HTH->DUF1700-ahelical+FTSW_RODA_SPOVE->	
DUF1700-ahelical+Pentapeptide					
AOH56696.1	ABE28_020195	Bacillus muralis	bacteria>firmicutes	PADR-HTH->DUF1700-ahelical+Pentapeptide->	
DUF1700-ahelical+PspC(s)+Lial-LiaF-TM+Toast-rack(s)					
AKD55949.1	SD10_14600	Spirosoma radiotolerans	bacteria>bacteroidetes	PADR-HTH->DUF1700-ahelical+PspC(s)+Lial-LiaF-TM+Toast-rack(s)->	
DUF1700-ahelical+PspC+Lial-LiaF-TM+Toast-rack					
AOW09537.1	EM308_08495	Flavobacterium gilvum	bacteria>bacteroidetes	PADR-HTH->DUF1700-ahelical+PspC+Lial-LiaF-TM+Toast-rack->TM+Toast-rack->SIG+Toast-rack->	
DUF1700-ahelical+TM(s)					
AAO82145.1	EF_2427	Enterococcus faecalis V583	bacteria>firmicutes	PADR-HTH->DUF1700-ahelical+TM(s)->	
CAC98678.1	lmo0600	Listeria monocytogenes EGDe	bacteria>firmicutes	PADR-HTH->DUF1700-ahelical+TM(s)->SIG+Toast-rack->ACET-> <-X(s)<-SIG+TM(s)	
DUF1707-SHOCT+Toast-rack					
BAD60342.1	NFA_54900	Nocardia farcinica IFM 10152	bacteria>actinobacteria	SIG+TM(s)+HAMP+ACYC SIG+TM(s)->SIG+TM(s)+HISKIN->REC+GerE-HTH->DUF1707-SHOCT+Toast-rack->	
CCP43715.1	Rv0966c	Mycobacterium tuberculosis H37Rv	bacteria>actinobacteria	DUF1707-SHOCT+Toast-rack->	
CAB88834.1	SCO2893	Streptomyces coelicolor A32	bacteria>actinobacteria	TM(s)->TM(s)->ABC-ATPase->DUF1707-SHOCT+Toast-rack->	
Lial-LiaF-TM+Toast-rack					
CAB15300.1	liaF	Bacillus subtilis subsp subtilis str 168	bacteria>firmicutes	Lial-LiaF-TM->PspA->SIG+Toast-rack->Lial-LiaF-TM+Toast-rack->SIG+TM+HAMP+HISKIN->REC+GerE-HTH->	
ABD83157.1	Sde_3902	Saccharophagus degradans 240	bacteria>proteobacteria>gammaproteobacteria	Lial-LiaF-TM+Toast-rack->SIG+TM(s)+HISKIN->REC+GerE-HTH->	
AFH48155.1	IALB_0443	Ignavibacterium album JCM 16511	bacteria>ignavibacteriae	Lial-LiaF-TM+Toast-rack->SIG+TM(s)+HISKIN->REC+GerE-HTH->X(s)->TM->	
AEU34960.1	Acix8_0610	Granulicella mallensis MP5ACTX8	bacteria>acidobacteria	SIGMA-HTH->ZF+TM->TM+Lial-LiaF-TM->SIG+Lial-LiaF-TM(s)+Toast-rack->	
PspC(s)+Lial-LiaF-TM+Toast-rack(s)					
AKD55949.1	SD10_14600	Spirosoma radiotolerans	bacteria>bacteroidetes	PADR-HTH->DUF1700-ahelical+PspC(s)+Lial-LiaF-TM+Toast-rack(s)->	
PspC+Lial-LiaF-TM					
ABY34522.1	Caur_1294	Chloroflexus aurantiacus J10fl	bacteria>chloroflexi	PspC+Lial-LiaF-TM->	
PspC+Lial-LiaF-TM(s)+Toast-rack					
ACV77657.1	Namu_1253	Nakamurella multipartita DSM 44233	bacteria>actinobacteria	<-REC+GerE-HTH<-PspC+Lial-LiaF-TM+HISKIN PspC+Lial-LiaF-TM(s)+Toast-rack->X-> <-SIG+TM(s)	
PspC+Lial-LiaF-TM+HISKIN					
AIJ13865.1	SLIV_14405	Streptomyces lividans TK24	bacteria>actinobacteria	<-PspC+TM(s)+Toast-rack PspC+Lial-LiaF-TM+HISKIN->REC+GerE-HTH->	
BAB98004.1	Cgl0611	Corynebacterium glutamicum ATCC 13032	bacteria>actinobacteria	<-SIG+TM(s) X(s)-> <-PspC+TM(s)+Toast-rack PspC+Lial-LiaF-TM+HISKIN->REC+GerE-HTH->TM(s)->	
SHOCT-like+Coiled-coil+Toast-rack					
AQL53774.1	BZG32_08695	Enterococcus faecalis	bacteria>firmicutes	SHOCT-like+Coiled-coil+Toast-rack->PspC->SIG+TM(s)->	
SHOCT-like+Toast-rack					
AAF09613.1	DR_0019	Deinococcus radiodurans R1	bacteria>deinococcus-thermus>deinococci	SHOCT-like+Toast-rack->SHOCT-like->ZNR-inactive+DUF2089-HTH+SHOCT-like->SIR2->	
BAI87136.2	yviB	Bacillus subtilis subsp natto BEST195	bacteria>firmicutes	yviA-SIG+TM(s)->SHOCT-like+Toast-rack->PspC->SIG+TM(s)->	
CAB15517.1	yviB	Bacillus subtilis subsp subtilis str 168	bacteria>firmicutes	yviA-SIG+TM(s)->SHOCT-like+Toast-rack->PspC->SIG+TM(s)-> <-SIG+TM(s)	
SIG+Lial-LiaF-TM(s)+Toast-rack					
AEU34960.1	Acix8_0610	Granulicella mallensis MP5ACTX8	bacteria>acidobacteria	SIGMA-HTH->ZF+TM->TM+Lial-LiaF-TM->SIG+Lial-LiaF-TM(s)+Toast-rack->	
SIG+Lial-LiaF-TM+Toast-rack					
CAB15300.1	liaF	Bacillus subtilis subsp subtilis str 168	bacteria>firmicutes	Lial-LiaF-TM->PspA->SIG+Toast-rack->Lial-LiaF-TM+Toast-rack->SIG+TM+HAMP+HISKIN->REC+GerE-HTH->	
SIG+TM(s)+Toast-rack					
ALR80200.1	HSISS4_01188	Streptococcus salivarius	bacteria>firmicutes	REC+GerE-HTH->X->ABC-ATPase->X(s)->SIG+TM(s)+Toast-rack->SIG+TM(s)+Toast-rack->ABC-ATPase->TM(s)->	
ABD31150.1	SAOUHSC_02100	Staphylococcus aureus subsp aureus NCTC 8325	bacteria>firmicutes	SIG+TM(s)+Toast-rack->SIG+TM(s)+HISKIN->REC+GerE-HTH-> <-SIG+TM(s)	
SIG+Toast-rack					
ACO46500.1	Deide_15380	Deinococcus deserti VCD115	bacteria>deinococcus-thermus>deinococci	4HBT_2->X->PADR-HTH->DUF1700-ahelical+TM->X(s)->SIG+TM(s)+HISKIN->SIG+Toast-rack->REC+GerE-HTH->	
AJ131452.1	BF28_3762	Bacillus cereus E33L	bacteria>firmicutes	ABC-ATPase->TM(s)->SIG+Toast-rack->	
AAM36414.1	XAC1545	Xanthomonas citri pv citri str 306	bacteria>proteobacteria>gammaproteobacteria	GNTR-HTH->ABC-ATPase->TM(s)->SIG+Toast-rack->SIG+DUF2884->	
SIG+Toast-rack+CASPASE					
AFY83227.1	Oscil6304_3666	Oscillatoria acuminata PCC 6304	bacteria>cyanobacteria	SIG+Toast-rack+CASPASE->	
Toast-rack					
AGT82698.1	B737_2034	Amycolatopsis mediterranei RB	bacteria>actinobacteria	<-SIG+TM(s) X->TraJ-RHH->Toast-rack->ABC-ATPase->TM(s)->	
CAC05954.1	SCO5265	Streptomyces coelicolor A32	bacteria>actinobacteria	Toast-rack->PADR-HTH->	
ZNR+PspC					
ABC83427.1	Adeh_3661	Anaeromyxobacter dehalogenans 2CPC	bacteria>proteobacteria>deltaproteobacteria	ZNR+PspC->	
More information available on our web-app .					