

Q4FTW2_PSYA2	-----	---MTV	KRVK	KQLVQ	-LVVG	VSI-----	-----	SM	SAVMASAAIQ	QPE	EMANTAYV	LMD	YNTG	GEIL	AQK	NANQALP	PASLTKMMTS		
A0A0H3JIB3_ECO57	-----	-----	---MKRR	LIIA	ASLF	IFNLSS	-----	GF	AAENIPFSPQ	PEE	IHAGSWV	LMD	YTTG	QIIL	TAGNE	HQQRN	PASLTKLMTG		
Q3K6A1_PSEPF	-----	-----	---MN	ITFFA	-KRL	CLLVP-	LL----	LSP	AAPFAAEMMPS	PPQ	LAAKSYV	LMD	ANS	GNVL	VENNG	DQRLP	PASLTKLMTA		
A1SZ14_PSYIN	MIRKY	FYSNH	SQVS	FMKKIS	E-----	-L-VT	-ALIF	-----	SFN	LFANPTITPS	APE	I	GAKGYL	LID	FNSGKVL	SENNS	DVRLN		
Q3IJ78_PSET1	-----	---MKS	IK	HKILN	-G-VC	-GLVC	SAAV-	-----	-----	FSATAQIIPA	PPQ	VNAKGYF	LVD	F	TGKVI	AQGEAD	TKLA		
A0A119D0G3_SHEFR	-----	-----	-----	-----	-----	-----	-----	-----	MRPT	PNRAPMVT	PD	APS	VAAKAYV	LMD	YNSGRVI	AENAYESLN	PASLTKMMTS		
Q087L2_SHEFN	-----	---MNT	SKT	AQL	TTML	-FA	-SVVC	SSLA	ATPQ	PD	IRPT	PNR	APMVT	PD	APS	VAAKAYV	LMD	YNSGRVI	
Q8X6U3_ECO57	-----	---MTQY	-----	SSLLR	G	LAAG	-SAFL	FLFAP	TA-----	FA-	-----	AEQ	TVE	APS	V	DARAWI	LMD	YASGKVL	
DACA_ECO57	-----	---MNT	IFS	ARIM	KRLALT	-TALC	TAFIS	AA-----	HAD	DLN	IKTMIPG	VPQ	IDA	ESYI	LID	YNSGKVL	AEQ	NADVRRD	
Q4FTW2_PSYA2	YIIE	QRLASG	DLKET	DQVLM	SPN	AWCRGS-	--NSQ	SCMYV	PVN	KSAS	VID	MLRG	IIIQSG	ND	ASKAMAEH	IAGSEASFAI	LMNE	QAQKIG	
A0A0H3JIB3_ECO57	YVV	DRAIDSH	RITPD	DDIVTV	GRD	AWAKDNP	VVF	VSSLMFL	KEG	DRVSVRD	LSR	GLIV	DVSG	ND	ACVALADY	IAGGQRQFVE	MMN	NYAEKLH	
Q3K6A1_PSEPF	YIAT	LEIRRG	QIGEN	DPVTV	SEN	AWRTG--	---GSR	RMFI	KVG	SQVTVSD	LLH	GIIIQSG	ND	ASVAAEH	IAGSEDAFAD	LMN	KTVADLG		
A1SZ14_PSYIN	YIIG	QEIKSG	NLSPD	DDKVTI	SEK	AWSKNF-	--PES	KMFI	EVG	KEVS	VAD	LNR	GIIIQSG	ND	ACVAAEY	IAGSEGAFAFAD	LMNS	WAAQLG	
Q3IJ78_PSET1	YVIG	TEVKAG	NIAP	TD	DMVTV	SEK	AWAKNF-	--PES	KMFI	EVG	KQIS	VDD	LNR	GIIIQSG	ND	ACVAAEH	IAGSEGAFAFAD	LMN	HAAKLIG
A0A119D0G3_SHEFR	YVIG	HEIRVG	NISL	DDDDVAI	TKN	AWAKNF-	--PDS	KMFI	EVG	KTVKVHD	LNR	GIIIQSG	ND	ACVAAEH	IAGTEGA	FVDF	LMNS	WAKQLG	
Q087L2_SHEFN	YVIG	HEIRVG	NISL	DDDDVAI	TKN	AWAKNF-	--PDS	KMFI	EVG	KTVKVHD	LNR	GIIIQSG	ND	ACVAAEH	IAGTEGA	FVDF	LMNS	WAKQLG	
Q8X6U3_ECO57	YVVG	QALKAD	KIKLT	DMVTV	GKD	AWATGNP	ALR	GSSVMFL	KPG	DQVSVAD	LNK	GVI	IQSG	ND	ACIALADY	VAGSQESFIG	LMNG	YAKKLIG	
DACA_ECO57	YVIG	QAMKAG	KFKET	DLVTI	GND	AWATGNP	VFK	GSSLMFL	KPG	MQVPVSQ	LIR	GIN	IQSG	ND	ACVAMADF	AAGSQDAFVG	LMNS	YVNALG	
Q4FTW2_PSYA2	GMPE	EGHQAS	ALD	LAKLSRA	IIK	NSGDY●	IYSE	KEFTYN	GIT	QGNRNL	G	LATD	-PTVDG	LKT	GHTD	DAAG	YCLA	ASSNRE	
A0A0H3JIB3_ECO57	GLD	APGQHSS	AYDL	LAFLSRA	IIH	GEPEFYH	MYSE	KSILTWN	GIT	QGNRNL	G	LWD	KTMNV	DG	LKT	GHTSGAG	FN	LIASAVDG	
Q3K6A1_PSEPF	GLPN	PEHYSS	AHD	MAILARA	IIH	EDPAHYA	IYS	QKEFFWN	GIK	QPNRNL	L	LWRD	-KTVDG	LKT	GHTD	DEAG	Y	CMVSSAVRD	
A1SZ14_PSYIN	GLTA	EGHYTT	PHD	MAILAQA	LIN	DVPEYL	IYSE	KSFKN	GID	QPNRNL	L	LWD	KSLD	V	DG	IKT	GHTNREAG	YSL	LISATK
Q3IJ78_PSET1	GLD	DAHYYT	PRD	MATLGA	LIR	DVPEYA	LYK	KSFTYN	GIK	QYNRNL	L	LWD	DES	L	V	DG	IKT	GHTSDAG	
A0A119D0G3_SHEFR	GLD	SENHKT	AYD	MAILGAA	LIR	DVPEEYK	VYSE	KSF	TYN	GIK	QYNRNL	L	LWD	KSLN	V	DG	IKT	GHTSGAG	
Q087L2_SHEFN	GLD	SENHKT	AYD	MAILGAA	LIR	DVPEEYK	VYSE	KSF	TYN	GIK	QYNRNL	L	LWD	KSLN	V	DG	IKT	GHTSGAG	
Q8X6U3_ECO57	GLD	APGFST	ARD	MALLGKA	LIH	DVPEEYA	IHKE	KEFTFN	KIR	QPNRNL	L	LWSS	NLN	V	DG	MKT	GTTAGAG		
DACA_ECO57	GLD	ADGQYSS	ARD	MALIGQA	LIR	DVPEEYS	IYKE	KEFTFN	GIR	QLNRNL	L	LWD	NSLN	V	DG	IKT	GHTDKAG		
Q4FTW2_PSYA2	SRELL	NWGF	HFTTV	TQAPA	GQF	VSKVPVW	FGE	AKEIEV	TAD	NLQILT	K	TQKN	KISTV	ID	IP	E-SLEA	PIKK	QGEIGK	
A0A0H3JIB3_ECO57	ARK	LLRWGQ	NFTTV	QILHR	GKK	VGTERIW	YGD	KENIALG	TEQ	EFWMVLP	KAE	IPHIKAK	Y	TL	DG	KE	PIA	HQVRVGE	
Q3K6A1_PSEPF	TQK	LLTYGFR	FFET	QTFYQK	GTE	LAQAPVW	KGT	TSQVKAG	LAQ	DLTMTLP	KGQ	LKKLAAS	MT	MNP	-QLTA	PIAKG	DVIGK	VEV	
A1SZ14_PSYIN	SKK	LLNWGFR	FFET	LTPYNA	GDQ	LANERIW	MGS	QPMIRLG	VKD	DDPITLPL	RGE	AKNL	TAN	FI	EN-ELRA	PIQKG	DVVGK	VNY	
Q3IJ78_PSET1	SKK	LLNYGFR	FYET	ITPYKA	GDS	FAEQRIW	MGN	KENVSLG	I	LED	TPITIP	RGQ	HKNL	KAN	FKLDN	-TLEA	PLAKG	TKVGT	
A0A119D0G3_SHEFR	SKK	LLNYGFR	FFET	ITPYKA	GDT	FVTQQIW	YGD	RETVDLG	VMT	DPITIS	RGK	AKDL	QAN	FEL	TK-PLTA	PLAKG	ETVGR	VFF	
Q087L2_SHEFN	SKK	LLNYGFR	FFET	ITPYKA	GDT	FVTQQIW	YGD	RETVDLG	VMT	DPITIS	RGK	AKDL	QAN	FEL	TK-PLTA	PLAKG	ETVGR	VFF	
Q8X6U3_ECO57	SEK	LLTWGFR	FFET	VTPIKP	DAT	FVTQRVW	FGD	KSEVNLG	AGE	AGSVTIP	RGQ	LKNL	LKAS	Y	TL	TEPQLTA	PLKKG	QVVG	
DACA_ECO57	SKK	LLTWGFR	FFET	VNPLKV	GKE	FASFPVW	FGD	SDRASLG	V	DKD	VYLTIP	RG	RKDL	LKAS	Y	VLN	SS	ELHA	
Q4FTW2_PSYA2	VIAT	SDIEQS	GFMS	RIWQRF	SRWA	QNLF--	---	---	---	---	---	---	---	---	---	---	---	---	
A0A0H3JIB3_ECO57	LVT	LESV	GE	G	SMFS	RSLSDYF	HHKA	-----	---	---	---	---	---	---	---	---	---	---	
Q3K6A1_PSEPF	LIAL	DAVEEG	GIF	RRMWD	SI	RLFFYGLFN	---	---	---	---	---	---	---	---	---	---	---	---	
A1SZ14_PSYIN	LIAL	ETVEEG	GLFS	R	LIDYI	KLL	FIGWFS	---	---	---	---	---	---	---	---	---	---	---	
Q3IJ78_PSET1	LVT	LEEVEEG	SFFS	KIYDYL	RLQ	IMQ	---	---	---	---	---	---	---	---	---	---	---	---	
A0A119D0G3_SHEFR	LVT	LNVEEG	GLFS	K	LMDFY	KQMFASWFE	---	---	---	---	---	---	---	---	---	---	---	---	
Q087L2_SHEFN	LVT	LNVEEG	GLFS	K	LMDFY	KQMFASWFE	---	---	---	---	---	---	---	---	---	---	---	---	
Q8X6U3_ECO57	LIV	MENVEEG	GF	FRMWD	FV	MMK	FHQWFGS	WFS	---	---	---	---	---	---	---	---	---	---	
DACA_ECO57	LVL	QEIEEG	NFFG	KI	DIYI	KLM	FHHWFG-	---	---	---	---	---	---	---	---	---	---	---	

signal sequence

active Ser residue

conserved residue

signal cleavage site

active Lys residue

substrate binding residue