

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	MKEILKTLTEAMTLPEDSYSEQDAEFLEIFIEEIEEIFVDLQPLINKWMQSENIATLTEIRRHFTLKGSGRMIGAKSSA	0
NTDB id 413 AAK55817.1 141..845( )	.....	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	MKEILKTLTEAMTLPEDSYSEQDAEFLEIFIEEIEEIFVDLQPLINKWMQSENIATLTEIRRHFTLKGSGRMIGAKSSA	80
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	ELAWTVEDTLNRVINQSLQLTPTIQSYVQLVFKFYFLKLVDNFKQKRAHTLDFRPLILLGQQQLQQQSSLEPALEELLQLS	0
NTDB id 413 AAK55817.1 141..845( )	.....	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	ELAWTVEDTLNRVINQSLQLTPTIQSYVQLVFKFYFLKLVDNFKQKRAHTLDFRPLILLGQQQLQQQSSLEPALEELLQLS	160
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	HTLMAETVTGLELDYIEQDSLAEPIIQATHTEIEINLDETTLTFMEEAAEHLATIHQFLDQELHQYDSYNALIRALHTLR	0
NTDB id 413 AAK55817.1 141..845( )	.....	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	HTLMAETVTGTGLELDYIEQDSLAEPIIQATHTEIEINLDETTLTFMEEAAEHLATIHQFLDQELHQYDSYNALIRALHTLR	240
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	GSSAMAQVETIFEASTKVEHLFKILLQEELSSHSEEILLQYREFVRDSLELLSRYSSSEQLEARLLQFNQSWDAYVEQ	0
NTDB id 413 AAK55817.1 141..845( )	.....	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	GSSAMAQVETIFEASTKVEHLFKILLQEELSSHSEEILLQYREFVRDSLELLSRYSSSEQLEARLLQFNQSWDAYVEQ	320
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	HGDRTDPLMP SHGLV S QLLQLD VSEL L DAE LDFEKG I RNEFPDYLERLSEQADLLLQH THSQAM LGLHE YTSQLKESYEV	0
NTDB id 413 AAK55817.1 141..845( )	.....	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	HGDRTDPLMP SHGLV S QLLQLD VSEL L DAE LDFEKG I RNEFPDYLERLSEQADLLLQH THSQAM LGLHE YTSQLKESYEV	400
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	LLDKPALLQSDY I FEIYQKAHQQL IQLFDALAAGQ R VGVKQHS ILEELKLYTQYTPD I SNDLPQQDSTS FEP IYNT IES	3
NTDB id 413 AAK55817.1 141..845()	MTS	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	LLDKPALLQSDY I FEIYQKAHQQL IQLFDALAAGQ R VGVKQHS ILEELKLYTQYTPD I SNDLPQQDSTS FEP IYNT IEP	480
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1		0
NTDB id 1417 SGL RS04200 WP 014407071.1		0
consensus		

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NTDB id 1419 SGL RS12550 WP 010873252.1	DPN.....EPEVVATVENFSDSADWAVLGQSVQQDRQYISSTQVNRNFDADLLDIFLEEAEELLEGI AQAFET IYEEEDAFNNLM	28
NTDB id 413 AAK55817.1 141..845()	PAQAFENWFEEEEGDDAFTSLI	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	EPEVVATVENFSDSADWAVLGQSVQQDRQYISSTQVNRNFDADLLDIFLEEAEELLEGI DTDLNIWVGEQENFAALNNLM	560
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1		0
NTDB id 1417 SGL RS04200 WP 014407071.1		0
consensus		

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NTDB id 1419 SGL RS12550 WP 010873252.1	RYLHTLKGGANMVQATYLGLIAHELES IYERLIQKQLVVTSDLIDFIRLVQDDLADRLQIMREQQLDYAAPYTINALKRA	31
NTDB id 413 AAK55817.1 141..845()	AGE.....	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	RYLHTLKGGANMVQATYLGLIAHELES IYERLIQKQLVVTSDLIDFIRLVQDDLADRLQIMREQQLDYAAPYTINALKRA	640
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1		0
NTDB id 1417 SGL RS04200 WP 014407071.1		0
consensus		

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NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845()
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

EQNSNFEELBYBFAEPEVISEEYLSSEITIDEIPVELEPALAELETHHDQVFDTSYGELEPVMITDYNSPEEYLR
ETNSGIEELDFGDLFEGETPTVIQGEFGS.....PSSGEEDPPVRMTLDFNSPEAELD 84
..... 0
..... 0
GQNSNFQPLPVVEAFDAESEVFSEQKVISEIIIDEIPVELEPALAELETHHDQVFDTAVTELATPVEMITTVTSQENEVA 720
..... 0
..... 0
..... 0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845()
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

ANEQDIEAWEALFTBEEERTETTEREESLESSWEQBIR
.....ALFTDEDAPTTAIDPFESSSWLEIDQMMEADPLASIPETNAPAYQTAGGLDDNDLAELQDLLGVGDVEP 153
..... 0
..... 0
ANEQDIEAWEQTFLEEATELLEMAESLLKQWFEQRTNR.....S.....ILL 763
..... 0
..... 0
..... 0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845()
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

ATIRBAYHSHKAGARMYELINYLAYSALENAFEQFATDDFDSINADRYLSEEFISWFLKDAIFNHNYQEFBTLQSTPERKS
AITNPGLHSFAGADRVTPLTNEVLL.FA.....AIDDLGLINAPVLDEEFSF.....TELETLIDTPAPKS 214
..... 0
..... 0
.QLQRAVHSLKGGARMVGLEAVQAIAYQLENAFEQFALHHFNNSNIYDHLLESIAIWLKDAIFNHNYQHFDGLQQSLENIQ 842
..... 0
..... 0
..... 0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845()
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
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NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

FATFETTFSTPYKMYTERDLFSSLEALLEQADSSLYMTFISGNGTERPWESEYRBSNNGYRVSAKTEBNLSLS
FATISHPFRLPVAMEEDEDKDLLEALLEQADSSLGGGIAGMGGARLPARP...RQVKSRSEFQTMRVPIKQLDNLSNLI 291
..... 0
..... 0
F..FETTIQIPTKLTRA.DLFSS.EP.....VMTFIQGDGTEPPPMGAWEQTERLDQNNEMIRVSADLIEKMIDLS 910
..... 0
..... 0
..... 0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845()
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

GENSYNRRLTLDDEBFRRLDYMENRAQLADGLRMDELEYETLEGALLASRSTNSRHHSSKTTYPDARITAKSSST
GELVVKRNRLREQDQERLRQFLDNLLNQAQNLSDVGGRMQDLYERTLLEGALLASRSTNSRHHSSKTTYPDARITASSSST 371
..... 0
..... 0
GENSINRSRIEMDL SQFSHTLVEMELAIQRLADQLRRMEGELETQI.....IAKHGIEH 964
..... 0
..... 0
..... 0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845()
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

SRDDBDLEMDSYTSFNL SREMAEASBYKSKSTSYKYBTESYLRSSYQETQEGMTRIRLVPFSTLRLR
MNDQPLDALEMDRFTGFHLLSQEMIELIVRVRESASDIQYLVDETDQVARTLRQVTTQLQEGMTKSRMVPFTQTADRLPR 451
..... 0
..... 0
SRYTDFDPLEMDQYSSLNQLSKSLAESASDLVDFKNTLSDKIRDTESLLLQSQRIQAEIQEGLMRTRLVPFSRLLPRLQR 1044
..... 0
..... 0
..... 0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845()
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

AYREYSKLNRRXNLEVNTEBETDRNILERLYTPMEHMYRNAIHHGTEBFAERQRANKSEEGRIEYRAPEQGIBYLYY
AIREVSMKLNKKVNLEVEGGDVLIDKMILEHLYNPMTHLVNNAITHGIETPAERQKLGKSPEGHLAVRAFLQGNQTLITV 531
..... 0
..... 0
IVRQTSTALNRPAELFVNNTTEGELDRNILERLVTPLHMLRNAIDHGLEDRAQRQQANKPETGRIELNIQRQGTDVVVVF 1124
..... 0
..... 0
..... 0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845()
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
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NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

SDDGAGINTEMVQKAVEKGLISRMEAQSLSQSEVYDLLFHAGFSTKDTADDFAGRGVGLDVVRTSLIDIRGAINIESTV 611
..... 0
..... 0
SDDGQGIDVEKVRQKALLAGLIKPEQDLEQQDILQLIFHPGLSTAEQVTQISGRGVGLDVVQSDIKSLGGHVSVESVY 1202
..... 0
..... 0
..... 0

logo

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NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845( )
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus
```

GRGTTFTIRYPITYSYSKALWYKSRDASLALPMDGYBTRBYSPKSLYDYFESFQELYKYENEAALLLRYPPLRLLENFNR
GKGTTFTIRLPLTLSICKALCCLSDRARIAFPMDGVEDTRDYLPKDIVTD.EDGQKCVKYGKEALLLPLYPLKDLLNYNR 690
..... 0
GQGTTFITIRVPTTVAVSDALMVKVADQQFAIPLAQIDRIIRVSPASLEQYFESPQELFEYEN.....KRYPLRYLSEFVG 1277
..... 0
..... 0
..... 0

logo

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NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845( )
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus
```

NESPSPSYNGGKQYMYVYRANSSGRTYALQYDQYTGEAEIVYKPIEQPFSPPEAIGATYRGDSYMLIDYQNTA
 QLSRGSVYGGKQEEDVVRVIIARGSSGNLLALQIDQVLGEE.EIVIKQIEGPIPKPPGIAGATVRGDGSIMPIADVLELI 769
 0
 0
 NQPIPRLNG...VMYSLPVLMIKANNGQTVALLVDQLIGSRAQIVVKPIGQQFSSIGAIAGATILGDGQVCLILDGQNIA 1354
 0
 0
 0

logo

```

NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845( )
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

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Sequence	Count
EIAQGRRLRT.DSSGGLWRKTLTPTVNEVHMDPTVLIVDDSI TVRELLSLSFKKACGRVEQARDGQEAWDQLKSGLPCLDV	848
.....MKKTLIVDDEKPI SDITKFNMTKEGYEVVTA FNGREALEQFEAEQ.PDII	49
.....MKKTLIVDDEKPI SDITKFNLAKEGYDTITAFDGREALSKYEEN.PDLI	49
RQIQSTQRHKQLSEAVY.....RQRESDERRLIMIVDDSVTVRKVTSRLLERQGYDVVTAKDGVDATEQLENIK.PDLM	1427
.....MEDAFQNLKVMVIDDSKTI RRTAETLLQREGCEVITAVDGF EALSKIAEAN.PDIV	55
.....MSTVLVVEDSVTQREM ITDLLKGSGIEVTTIATDGV EALEHIQGHCPDLV	49
.....MNAVLLVEDSSQREMISGILKDHGQVVTIACDGV EALEKIQNFS.PDLV	49

logo

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NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845( )
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

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Sequence	Position
FCDIEMPRKNGLELLESELQADEELSSIPVALLTSRGADRRHKVAAKLGATGYFTKPYTEKDIIDAANRMNGEVLLPGST	928
TLDLMLPEIDGLEVAKTIR...KTSSVPILMLSAKDSEFDKVIQLELGADDYVTKPFSNRELQARVKALLRSPQMPVDG	126
ILDLMPELDGLEVAKEVR...KNSHVPIIMLSAKDSEFDKVIQLELGADDYVTKPFSNRELLARVKAHLRRTENIESAV	126
LDIEMPRMDGFEVLNLRHHDHMQYMPIIMITSRTGKHRERAFSLGVSQYMGKPPFQEEELLENIDALLVAFESEVK.	1506
FVDIMPRLDGYQTCALIKNSQNYQNPVIMLSSKDGLFDQAKGRVVGSDYELTKPFSKDELLNAIRNHVSS.....	127
VLDIVMPRMNGYEVCRRLKADPKTKQKVPVVMCSSKGEFDRYWCMMKQCADAYIAKPPFQPTLVGTIVKQLLRG.....	121
VLDIVMPRMNGYEVCRRIKSDPKTKKNVPVIMCSSKGEFDRFWCMRQCADAYIAKPPFQPMELVGTIKQLLRN.....	121



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NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845( )
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus
```

[illegible]

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NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845( )
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus
```

GYDYFGDVRTVDVTVRRLREKIEDTPSRPEYILTRRGVYMKSYD
 EKLKSLPCDLILCDIEMPRMNGLELLERIQEDPNLSRIPVAMITSRGAQKMQRMAAEKGAKGYFVKPYIEETLLEASQR
 GYDYFG...DVRTVDVTV....RRLREKIEDTPSR...PEYILT.....RRGVGYMYMRNNA*.....
 GYDYFG...DVRTVDVTV....RRLREKIEDTPSR...PEYILT.....RRGVGYMKSYD.....


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NTDB id 1419 SGL RS12550 WP 010873252.1
NTDB id 413 AAK55817.1 141..845( )
NTDB id 374 SMU RS06885 WP 002262930.1
NTDB id 1046 HON27 RS03130 WP 168726941.1
NTDB id 1047 HON27 RS03110 WP 000389061.1
NTDB id 1094875 ACMUEV RS02530 WP 017290869.1
NTDB id 1417 SGL RS04200 WP 014407071.1
consensus

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LIRGEVLLDLAALSADE
LIRGEVLLDLAALSADE 1095
. . . . . 234
. . . . . 235
. . . . . 1506
. . . . . 127
. . . . . 121
. . . . . 121

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- X non conserved
- X similar
- X $\geq 50\%$ conserved