

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	MKEILKTLTEAMTLPEDSYSEQDAEFLEIFIEEIEEIVFDLQPLINKWMQSENIATLTEIRRHFTLKGSGRMIGAKSSA	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	MKEILKTLTEAMTLPEDSYSEQDAEFLEIFIEEIEEIVFDLQPLINKWMQSENIATLTEIRRHFTLKGSGRMIGAKSSA	80
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus	.....	0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	ELAWTVEDTLNRVINQSLQLTPTIQSYVQLVFKFYFLKLVDFNFKQKRAHTLDFRPLILLGQQLQQQSLEPALEELLQLS	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	ELAWTVEDTLNRVINQSLQLTPTIQSYVQLVFKFYFLKLVDFNFKQKRAHTLDFRPLILLGQQLQQQSLEPALEELLQLS	160
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus	.....	0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	HTLMAETVTGLELDYIEQDSLAEPIIQATHTEIEINLDETTLTFMEEAEEHLATIHQFLDQELHQYDSYNALIRALHTLR	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	HTLMAETVTGLELDYIEQDSLAEPIIQATHTEIEINLDETTLTFMEEAEEHLATIHQFLDQELHQYDSYNALIRALHTLR	240
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus	.....	0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	GSSAMAQVETIFEASTKVEHLFKILLQEELSSHSEEILLQEYREFVDRSLELLSRYSSSEQLERLLQFNQSWDAYVEQ	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	GSSAMAQVETIFEASTKVEHLFKILLQEELSSHSEEILLQEYREFVDRSLELLSRYSSSEQLERLLQFNQSWDAYVEQ	320
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus	.....	0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	HGDRTDPLMP SHGLV S QLLQLD V S ELLDAELDFEKGIRNEFPDYLERLSEQADLLLQHTHSQAMLGLHEYTSQLKESYEV	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 V S ELLDAELDFEKGIRNEFPDYLERLSEQADLLLQHTHSQAMLGLHEYTSQLKESYEV	400
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	LLDKPALLQSDYIFEIYQKAHQQLIQLFDALAAGQRVGVVKQHQSI L EELKLYTQYTPDISNDLPQQDSTSFEP IYNT <sup>MTS</sup>	3
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	LLDKPALLQSDYIFEIYQKAHQQLIQLFDALAAGQRVGVVKQHQSI L EELKLYTQYTPDISNDLPQQDSTSFEP IYNTIEP	480
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	<sup>EPN</sup> EWVATVENFSDSADWAVLGQSVQQDRQYISSTQVNRNFDADLLDIFLEEAEEELLEGGTAAQAFETI <sup>PRTRINNYE</sup> EE <sup>ENER</sup> AD <sup>HTS</sup> LY	
NTDB id 413 AAK55817.1 141..845( )	DPN.....PAQAFENWFEEEEGDDAFTSLI	28
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	EPEVVATVENFSDSADWAVLGQSVQQDRQYISSTQVNRNFDADLLDIFLEEAEEELLEGGIDTDLNIWVGEQENFAALNNLM	560
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	<sup>RYL</sup> EHTLKGGANMVQATYLGLIAHELES IYERLIQKQLVVTSDLIDFIRLVQDDLADRLQIMREQQLDYAAPYTINALKRA	
NTDB id 413 AAK55817.1 141..845( )	AGE.....	31
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	RYLHTLKGGANMVQATYLGLIAHELES IYERLIQKQLVVTSDLIDFIRLVQDDLADRLQIMREQQLDYAAPYTINALKRA	640
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	EQNSNFEELBYVBAFBAEPEVLSSEKYSSEIIIDEIPVELEPALAELETHHDQVFDTSYGELEKPVEMITLDFNSPEAEYR	84
NTDB id 413 AAK55817.1 141..845( )	ETNSGIEELDFGDLFEQEPTVIQGEFGS.....PSSGEEDPPVRMTLDFNSPEAELD	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	GQNSNFQPLPVVEAFDAESEVFSEQKVISEIIIDEIPVELEPALAELETHHDQVFDTAVTELATPVEMITTVTSQENEVA	720
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	ANEQDI EAVVEQLTLEERTETTEVRESLSSWLEQRTNRMEADPLASIPETNAPAYQTAGGLDDNDLAEQLDLLGVGDVEP	153
NTDB id 413 AAK55817.1 141..845( )	.....ALFTDEDAPTTAIDPFESSSWLEIDQMMEADPLASIPETNAPAYQTAGGLDDNDLAEQLDLLGVGDVEP	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	ANEQDI EAVVEQTFLEEATELLEMAESLLKQWFQRTNR.....S.....ILL.....	763
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	AQTRPXYHSFKGRRVYELINYLKYSLENAFEQFATDDFDLNAHLDEAFALKDAIFNHNHYQHFDEGLDLSLANTIS	214
NTDB id 413 AAK55817.1 141..845( )	AITNPGLHSFAGADRVPTLTNEVLL.FA.....AIDDDLGLINAPVLDEEFSF.....TELETLIDTPAPKS	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	.QLQRAVHSLKGGARMVGLEAVQAIAYQLENAFEQFALHHFNSNIYDHLLESIAIWLKDAIFNHNHYQHFDGLQQSLENIQ	842
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	FATFETIIPYKMYTERDLFSSERALLEQADSSLYMTFISGCTEPVDEAWERLSDQFEWYRVKSLKLENYLNLIS	291
NTDB id 413 AAK55817.1 141..845( )	FATISHPFRLPVAMEEDEDKLEALLEQADSSLGGGIAGMGGARLPARP...RQVKRSRFEQTMRVPIKQLDNLSNLI	0
NTDB id 374 SMU RS06885 WP 002262930.1	.....	0
NTDB id 1046 HON27 RS03130 WP 168726941.1	F..FETTIQIPTKLTRA.DLFSS.EP.....VMTFIQGDGTEPPPMGAWEQTERLDQNNEMIRVSADLIEKMIDLS	910
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	GELVVKRNRLEQDQERLRQFLDNLLNQAQNLSDVGGRMQDLYERTLLEGALLASRSTNSRHHSSKTTYPDARITASSSST	371
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	GENSINRSRIEMDLSQFSHTLVEMELAIQRLADQLRRMEGELETQI.....IAKHGIEH	964
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	MNDQPLDALEMDRFTGFHLLSQEMIELIVRVRESASDIQYLVDQVARTLRQVTTQLQEGMTKSRMVPFTQTADRLPR	451
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	SRYTDFDPLEMDQYSSLNQLSKSLAESASDLVDFKNTLSDKIRDTESELLLQSQSRIQAEIQEGLMRTRLVPPSRLLPRLQR	1044
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	AIREVSMKLNKKVNLEVEGGDVLIDKMLEHLYNPMTHLVNNAITHGIETPAERQKLGKSPGHLAVRAFLQGNQTLITV	531
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	IVRQTSTALNRPALFVNNTEGELDRNILERLVTPLEHMLRNAIDHGLEDRAQRQQANKPETGRIELNIQRQGTDDVVVVV	1124
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	SDDGAGINTEMVKQKAVEKGLISRMEAQSLSQSEVYDLLFHAGFSTKDTADDFAGRGVGLDVVVRTSLIDIRGAINIESTV	611
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	SDDGQGIDVEKVRQKALLAGLIKP..EQDLEQQDILQLIFHPGLSTAEQVTQISGRGVGLDVVQSDIKSLGGHVSVESVY	1202
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	0
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	0
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	0
consensus		

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 157829 AOY38 RS02325 WP 014407071.1  
 NTDB id 1417 SGL RS04200 WP 014407071.1  
 NTDB id 1047 HON27 RS03110 WP 000389061.1  
 consensus

GKGGTTFTIRLPITYSYKALMXYRBSBFAIPYRSYBTRBYVSPKSTYQDFESGQELKYEYEREALLLRYPLRRLSEFVNS  
 GKGGTTFTIRLPITLSICKALCCLSDRARIAPFMDGVEDTRDYLPKDIVTD.EDGQKCVKYGKEALLLPLYPLKDLLNYNR  
 .....  
 GQGGTTFTIRVPTTVAVSDALMVKQVADQQFAIPLAQIDRIIRVSPASLEQYFESPQELFEYEN.....KRYPLRRLSEFVNG  
 .....  
 .....

690  
0  
0  
1277  
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 157829 AOY38 RS02325 WP 014407071.1  
 NTDB id 1417 SGL RS04200 WP 014407071.1  
 NTDB id 1047 HON27 RS03110 WP 000389061.1  
 consensus

QLSRGSSVYGGKQEEVDVVRVVIARGSSGNLLALQIDQVLGEEE.IVIKQIEGPIPKPPGIAGATVVRGDGSIMPIADVLELI  
 .....  
 NQPIPRNLG...VMYSLPVLMIKANNGQTVALLDQLIGSRAQIVVKPIGQQFSSIGAIAGATILGDGQVCLILDGQNI  
 .....  
 .....

769  
0  
0  
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 157829 AOY38 RS02325 WP 014407071.1  
 NTDB id 1417 SGL RS04200 WP 014407071.1  
 NTDB id 1047 HON27 RS03110 WP 000389061.1  
 consensus

EIAQGRRLRT.DSSGGLWRKTLTPTVNEVHMDPTVLIIVDDSIITVRELLSLSFKKAGFRVEQARDGQEAWDQLKSGLPCDLV  
 .....MKKILIVDDEKPIISDIKFNMTKEGYEVVTAFTNGREALEQFEAEQP.DII  
 .....MKKILIVDDEKPIISDIKFNLAKEGYDTITAFDGREALSKEYEENP.DII  
 RQIQSTQRHKQLSEAVY.....RQRESDERRLIMIVDDSVTVRKVTSRLLERQGYDVVTAQDGVDATEQLENIKP.DLM  
 .....MNAVLLVEDSSSQREMISGILKDHGWQVTIACDGVEALEKLNQFSP.DLV  
 .....MNAVLLVEDSSSQREMISGILKDHGWQVTIACDGVEALEKLNQFSP.DLV  
 .....MEDAFQNLKVMVIVDDSKTIRRTAETLLQREGCEVITAVDGFALSKITAEANP.DIV  
 \* \*\*\*\*\*! \* \*\*\*\*\* \* \* \* !\*\*\*\*\*! \*! \*!\*\*\*\*\* ! !\*\*

848  
49  
49  
1427  
49  
49  
55

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 157829 AOY38 RS02325 WP 014407071.1  
 NTDB id 1417 SGL RS04200 WP 014407071.1  
 NTDB id 1047 HON27 RS03110 WP 000389061.1  
 consensus

FCDIEMPRKNGLELLSELQADEELSSIPVALLTSRGA DRHRKVA AKLGATGYFTKPYTEKDILDAANRMLNGEVLLPGST  
 ILDLMLPEIDGLEVAKTIRK...TSSVPILMLS AKDSEFDK VIGLELGADDYVTKPFSNRELQARVKALLRRSQPMPVDG  
 ILDLMLPELDGLEVAKEVRK...NSHVPIIMLS AKDSEFDK VIGLEIGADDYVTKPFSNRELLARVKAHLRRTENIESAV  
 LLDIEMPRMDGFEVLNLRVHHDMHQYMPIIMITSRTGKHRERAFSLGVSQYMGKPFQEEELLENIDALLVAFESEVKS.  
 VLDIVMPRMNGYEVCCRISDPKTKNVPVIMCSSKGEFDRFWGMRQADAYIAKPFQPMELVGTIKQLLRN.....  
 FVDIMPRLDGYQTCALIKNSQNYQNIPVIMLSSKDGFLDQAKGRVVGSDLEYLTKPFSKDELLNAIRNHVSS.....  
 \*!\*\*\*\*\*!\*\*\*\*\*!\*\*\*\*\* \* \* \* !\*\*\*\*\* \* \* \* !\*\*\*\*\*!\*\*\*\*\* \* \* \* !\*\*\*\*\*

928  
126  
126  
1506  
121  
121  
127

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	RKTNSI.LSRFKKARGNFSEEAPTIVRSNPGTL.....R.....STVLIIDDSVMVREMLSMTFKKADYHTTETARDGQDA	997
NTDB id 413 AAK55817.1 141..845( )	Q.EADSKPQPI..QIGDLEIVPDAYVAKKYGEELDLTHREFELLYHLASHTGQVITREHLLET.....V	187
NTDB id 374 SMU RS06885 WP 002262930.1	AEENASGIPEI..IIGDLQILPDAFVAKKRGTEVELTHREFELLHHLATHTGQVMTREHLLET.....V	188
NTDB id 1046 HON27 RS03130 WP 168726941.1	.....	1506
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	121
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	121
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	127
consensus		

<0

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	WEKLLKSGLPCLDLILCDIEMPRMNGLELLERIQEDPNLSRIPVAMITSRGAQKMQRMAAEKAKGAKGYFVKPYIEETLLEASQ	1077
NTDB id 413 AAK55817.1 141..845( )	WGYDYFG...DVRTVDVTV.....RRLREKIEDTPSR...PEYILT.....RRGVGYMRNNA*.....	234
NTDB id 374 SMU RS06885 WP 002262930.1	WGYDYFG...DVRTVDVTV.....RRLREKIEDTPSR...PEYILT.....RRGVGYMRNNA*.....	235
NTDB id 1046 HON27 RS03130 WP 168726941.1	.....	1506
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	121
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	121
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	127
consensus		

logo

NTDB id 1419 SGL RS12550 WP 010873252.1	RLIRGEVLLDLAALSADE	1095
NTDB id 413 AAK55817.1 141..845( )	.....	234
NTDB id 374 SMU RS06885 WP 002262930.1	.....	235
NTDB id 1046 HON27 RS03130 WP 168726941.1	.....	1506
NTDB id 157829 AOY38 RS02325 WP 014407071.1	.....	121
NTDB id 1417 SGL RS04200 WP 014407071.1	.....	121
NTDB id 1047 HON27 RS03110 WP 000389061.1	.....	127
consensus		

- non conserved
- similar
- ≥ 50% conserved