

NTDB id	1323	RAOC RS07335 WP 004916218.1	.MLVVKVYGS A I H GVS A QTTITIEVNVDQGV.GYHLVLGLPDNATIKESSHRISAAIKNVGYKLPGKKITINMAPADLRKEGSA	78
NTDB id	1271	LPP RS03220 WP 011213198.1	MSLAFTKTRSTIGTIVAQQPVSEVEHLSNGLPSTFMVGLAETAVKESKDRVRSAIINSQFEFPCRKITVNLGPANLPKTGSG	80
NTDB id	1248	GC085 RS03150 WP 011213198.1	MSLAFTKTRSTIGTIVAQQPVSEVEHLSNGLPSTFMVGLAETAVKESKDRVRSAIINSQFEFPCRKITVNLGPANLPKTGSG	80
NTDB id	114339	APEC018 RS15430 WP 000058957.1	MSLSIVHTRAALGVNAAPPITVEVHISKGLPGLTMVGLPETVKEARDVRSAIINSGYEYPAKKITINLAPADLPKEGGR	80
NTDB id	1153	A1552VC RS00115 WP 000521788.1	MGLAIITHSRASIGVGQAAPPVTVEVHISNGMPGGFTLVGLPETTVKESRDRVRSAIINSRFEPFAKRITVNLAPADLPKEGGR	80
NTDB id	1397	DSB67 RS15690 WP 005535577.1	MGLAIITHSRASVGVAAPS V SEVEHISNGMPGGFTLVGLPETTVKESKDRVRSAIVNSNFQFP F PAKRITVNLAPADLPKEGGR	80
NTDB id	1349	HI 1117 AAC22771.1	MSLAIVYSRASMGVGA P PLVTIEVHLSNGKPGGFTLVGLPEKT T VKEAQDRVRSA L MNAQFKYPAKRITVNLAPADLPKEGGR	80
NTDB id	1387	A4U84 RS06900 WP 020457569.1	MSLAIIYSRASIGVGA P PLVTIEVHISGGS P GLTLVGLPEKS V KEAQDRVRSA L MNAFDYPARRITINLAPADLPKEGGR	80
consensus				*?*****!*****!!*****!*~*****!*****!*****!*****!*****!*****!*****!

NTDB id	1323 RAOC RS07335 WP 004916218.1	YDLSTALGILAASGGTIIAPEIERVYLIMGELSLDGGGLQPIKGVLPIATIRAREEGFGKGIILPKQNTRAEAILVNDLEVVGVEN	158
NTDB id	1271 LPP RS03220 WP 011213198.1	FDPILPALGILAASEQIPLTNLANHEFIGELALSSELGRVSATIPAVLAAHKD.NQHLLIANANAAEASTIGHQKVFTANN	159
NTDB id	1248 GC085 RS03150 WP 011213198.1	FDPILPALGILAASEQIPLTNLANHEFIGELALSSELGRVSATIPAVLAAHKD.NQHLLIANANAAEASTIGHQKVFTANN	159
NTDB id	114339 APEC018 RS15430 WP 000058957.1	YDLPIAIALLAASEQTANKLDEVELVGELATCALRGVPICATSSATEAIKS.GRKTIIVAKDNEDEVGLINGECGLIADH	159
NTDB id	1153 A1552VC RS00115 WP 000521788.1	FDPILPALGILAASDIARNKLSEVEFIGELALSGETRGVVKGVLPAALEANQV.ERCLVVPHSNGDQAALVGVERHKSACS	159
NTDB id	1397 DSB67 RS15690 WP 005535577.1	FDPILPALGILAASEQIATDKLKNYEFVGELATSGGLRTIVKGVLPAALAANKK.QRHLLVPHANGDQAALVGKEQHKSACS	159
NTDB id	1349 HI 1117 AAC22771.1	FDPPIAIGILAASGDLDASHLKQFEFVAELATGQLRGVHGVIIPAILLAAQS.KRELITIAKQNAANEASLVSDQNTTYFACT	159
NTDB id	1387 A4U84 RS06900 WP 020457569.1	FDPPIAIGILAASQQIDSKHLKRIFELLGELSITHLRGVHGAIPAVLAAASKA.KREITIIVPQQNANEASLVSNLTQTTYCAST	159
consensus		*!!*!!**!!!!!!*!* * !!*****! !*!! ***** **! * **** * !!*!!** *	

NTDB id 1323	RAOC RS07335 WP 004916218.1	I	K	E	V	I	D	F	F	N	E	N	C	P	L	E	P	T	K	V	N	T	R	E	E	F	H	K	R	V	N	L	F	P	F	D	F	S	E	V	K	G	Q	E	T	A	K	R	A	M	E	V	A	A	A	G	G	H	N	I	L	I	L	G	P	P	G	S	G	K	T	M	L	A	K	R	I	P	S	I	L	238
NTDB id 1271	LPP RS03220 WP 011213198.1	L	R	E	V	C	D	I	L	C	Q	G	T	S	L	Q	S	L	P	P	K	P	D	L	...	L	L	N	N	Y	E	L	D	W	S	D	I	K	G	Q	Q	H	A	K	N	A	M	V	I	A	A	C	G	G	H	S	I	L	L	S	C	A	P	G	S	G	K	T	M	A	K	R	F	S	T	L	235					
NTDB id 1248	GC085 RS03150 WP 011213198.1	L	R	E	V	C	D	I	L	C	Q	G	T	S	L	Q	S	L	P	P	K	P	D	L	...	L	L	N	N	Y	E	L	D	W	S	D	I	K	G	Q	Q	H	A	K	N	A	M	V	I	A	A	C	G	G	H	S	I	L	L	S	C	A	P	G	S	G	K	T	M	A	K	R	F	S	T	L	235					
NTDB id 114339	APEC018 RS15430 WP 000058957.1	L	Q	A	V	C	A	E	L	G	K	H	A	L	E	H	L	P	K	P	T	N	A	...	V	S	R	A	L	Q	H	D	L	S	D	V	V	G	E	Q	K	R	G	L	E	I	T	A	A	G	G	H	N	L	I	L	G	P	P	G	T	G	K	T	M	L	A	S	R	I	N	G	L	234								
NTDB id 1153	A1552VC RS00115 WP 000521788.1	L	L	E	V	C	A	D	I	L	C	G	Q	Q	T	S	L	F	Q	S	S	P	S	V	...	Q	Q	V	S	Q	T	R	D	L	Q	D	I	I	G	Q	Q	Q	K	R	A	L	E	I	A	A	A	G	N	H	N	L	L	F	L	G	P	P	G	T	G	K	T	M	L	A	S	R	L	C	D	L	235					
NTDB id 1397	DSB67 RS15690 WP 005535577.1	L	L	E	V	C	A	E	L	C	G	Q	H	L	N	L	Y	Q	T	P	K	K	...	E	L	K	A	H	G	R	D	L	Q	D	I	I	G	Q	Q	Q	K	R	A	L	E	I	A	A	A	G	N	H	N	L	L	F	L	G	P	P	G	T	G	K	T	M	L	A	S	R	L	C	D	L	235							
NTDB id 1349	HI 1117 AAC22771.1	L	L	D	V	V	Q	F	L	N	G	Q	E	K	L	P	L	A	T	E	I	V	K	E	S	A	V	N	F	S	G	K	N	T	L	D	L	T	D	I	I	G	Q	Q	H	A	K	R	A	L	T	I	A	A	A	Q	H	N	L	L	F	L	G	P	P	G	T	G	K	T	M	L	A	S	R	L	T	G	L	239		
NTDB id 1387	A4U84 RS06900 WP 020457569.1	L	L	Q	V	N	F	L	N	N	R	D	L	P	I	A	Q	Q	L	S	Q	N	I	A	E	N	.	R	P	L	V	S	R	D	L	T	D	I	I	G	Q	Q	H	A	K	R	A	L	I	I	A	A	S	G	H	N	L	L	F	L	G	P	P	G	T	G	K	T	M	L	A	S	R									

[illegible]

logo

NTDB id 1323 RAOC RS07335 WP 004916218.1	LREPLESGEIIISRAAKIIFPAFQLYAAMNPSPTC	397
NTDB id 1271 LPP RS03220 WP 011213198.1	MRQPLEDR	394
NTDB id 1248 GC085 RS03150 WP 011213198.1	LREPLESGHICISRAAAQIEFPAKFQLIAAMNPPC	394
NTDB id 114339 APEC018 RS15430 WP 000058957.1	LREPLESGHICISRAAAQIEFPAKFQLIAAMNPPC	391
NTDB id 1153 A1552VC RS00115 WP 000521788.1	LREPLESGEIVISRAQKTRFPAFQLVGALNPSP	392
NTDB id 1397 DSB67 RS15690 WP 005535577.1	LREPLESGEIIISRAQKTRFPAFQIVGALNPSP	392
NTDB id 1349 HI 1117 AAC22771.1	LRQPLESGEIIISRAQKTRFPAFQIVGALNPSP	396
NTDB id 1387 A4U84 RS06900 WP 020457569.1	LRQPLESGEIIISRAQKTRFPAFQIVGALNPSP	395
consensus	!!***** *!!* *** *!!*!*****!!*!!* * ** * ** *!!!! *!!!!*!!!!*!***** ** *	

logo

NTDB id 1323 RAOC RS07335 WP 004916218.1	Q L S D . . K R K G E S S E I T R Q R V L K A R E I Q Q E R Y Q D L A I S Y N A Q M G P K E I E H F C E L D E V S L L L I K N A M E K L N L S A R A Y D R I L K	475
NTDB id 1271 LPP RS03220 WP 011213198.1	ELIKPNTHLEKQSLAIREKVTMKEIIMARQDS L N A N L N S K T C E M V C E L G S E E Q L F L R E V M S K L K L S A R G Y H R I L K	470
NTDB id 1248 GC085 RS03150 WP 011213198.1	ELIKPNTHLEKQSLAIREKVTMKEIIMARQDS L N A N L N S K T C E M V C E L G S E E Q L F L R E V M S K L K L S A R G Y H R I L K	470
NTDB id 114339 APEC018 RS15430 WP 000058957.1	I L S K T . V V P G E N S T T V K Q R V M A A R E R Q F K R Q N K L N A W L D N P E I R Q F C K L E S E D A Q W L E E T L I H L G L S T R A W Q R L L K	466
NTDB id 1153 A1552VC RS00115 WP 000521788.1	T L A N G . G D R G E S T A A V R Q R V V W A R E R M L A R S G K V N A L L Q S R E I E Q Y C P L L K A D A E F L E S A L H R L G L S I R A Y H R I I K	467
NTDB id 1397 DSB67 RS15690 WP 005535577.1	T L S E G . G D R G E P T A I V K E R V N Q A R D C M L A R S G K V N A L L Q S R E I E A F C P L Q K S D A E F L E N A L H R L G L S I R A Y H R I I K	467
NTDB id 1349 HI 1117 AAC22771.1	S L Q N T . G D R G E T S A Q V R E K V L K V R E I Q M E R A G K I N A Y L N S K E I E R D C K L N D K D A F F L E K A L N K L G L S V R A Y H R I L K	471
NTDB id 1387 A4U84 RS06900 WP 020457569.1	A L Q N N T D Q R G E T T E Q A R K R V L E A R H L Q F N R R G K I N A Q L T T K E I E Q D C K L T D R D A L F L E N A L T K L G L S V R A Y H R I L K	471
consensus	! *** * * * * * ! * * ! ! * * * * * ! ! ** *** ** * ! ! ! ! ! * ! ! ! ! ! * ! !	

logo

NTDB id 1323 RAOC RS07335 WP 004916218.1	VSRTIADLERETNIQSHHIAEAIQYRSIDRDFWKV	510
NTDB id 1271 LPP RS03220 WP 011213198.1	VSRTIADMNSSKKVLLNHLQQALSYPKQNLHLPK	503
NTDB id 1248 GC085 RS03150 WP 011213198.1	VSRTIADMNSSKKVLLNHLQQALSYPKQNLHLPK	503
NTDB id 114339 APEC018 RS15430 WP 000058957.1	VARTIADIDQSDIITRQHLQEAVSYRAIDRLLIHLLQKLLT	506
NTDB id 1153 A1552VC RS00115 WP 000521788.1	VARTIADLQGEAQIARPHLAEALGYRAMDRLLKQLSAQNV	507
NTDB id 1397 DSB67 RS15690 WP 005535577.1	VARTIADLEGSPQIERTHLAEALGYRAMDRLLKQLTAQAV	507
NTDB id 1349 HI 1117 AAC22771.1	VSRTIADLQGEQIFQPHLAEALGYRAMVRLKQLSNM . .	509
NTDB id 1387 A4U84 RS06900 WP 020457569.1	VSRTIADLAGEAQIQPHLAEALGYRAMDRLLQRLQGES .	510
consensus	! * ! ! ! ! ! * * * * ! * * ! * ! * ! * ! * *	

- X non conserved
- X similar
- X ≥ 50% conserved