

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	MLCQNCNINEA.....	TI	13
NTDB id 378 SMU RS02690 WP 002263569.1	MLCQNCNINEA.....	TI	13
NTDB id 241 SP RS04015 WP 000882523.1	MLCQNCNINDS.....	TI	13
NTDB id 281 KZH43 RS03550 WP 000882517.1	MLCQNCNINDS.....	TI	13
NTDB id 245 SPD RS03860 WP 000882517.1	MLCQNCNINDS.....	TI	13
NTDB id 243 SPR RS03635 WP 000882517.1	MLCQNCNINDS.....	TI	13
NTDB id 87332 K6K00 RS00515 WP 003235011.1	..MMFGRFTERAQKVLALAQEEALRLGHNNGTEHILLGLVREGEGLAAKALQALGLGSEKIQKEVESLIG.....RGQEMS		75
NTDB id 85 BSU 00860 NP 387967.1	..MMFGRFTERAQKVLALAQEEALRLGHNNGTEHILLGLVREGEGLAAKALQALGLGSEKIQKEVESLIG.....RGQEMS		75
NTDB id 610 V4T04 RS10165 WP 012897346.1	MKFENIKYPTPLDRILEKAE EYAHQYQYGTIESAHLAAMATTSGSTAYSLLAGMNVDDSSDLLIDL.....EDLSSHVKVKR		77
NTDB id 290 KZH43 RS10025 WP 001109677.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE.....EVALELTETDYSQDET	F	75
NTDB id 289 SPD RS10700 WP 001109677.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE.....EVALELTETDYSQDET	F	75
NTDB id 287 SP RS11210 WP 001109712.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE.....EVALELTETDYSQDET	F	75
NTDB id 377 SMU RS09275 WP 002262344.1	...MTDYS LKMQEVFRLAQFEAARFESSYLESWHVLLAMVEIDSSVAGLSFAEFEADVRFEDYQAAAILAIGKKPKSSSN...DI	I	79
NTDB id 329 STER RS00545 WP 011680614.1	...MTIYSRKMQAIFHRAQLEAERFESPFL ETWHVLLAMVEVTGSAVYLTFTDFEDRIHSEEIETA AVLAMEKRPKDLSESDI	I	81
NTDB id 327 STU RS10020 WP 011225298.1	...MTIYSRKMQAIFHRAQLEAERFESPFL ETWHVLLAMVEVPGSAVYLTFTDFEDRIHSEEIETA AVLAMEKRPKDLSESDI	I	81
consensus	*** * * * * *		

logo

NTDB	id	601	KW2	RS02615	WP	021036805.1	HL	YTSVNG	QKKQ	ID	LCQNCYQ	I...	MKS	G	Q	EAL	L	F	G	A	G	N	A	S	N	G	N	S	D	E		P	F	N	P	.	F	N	D	I	F	S	A	L	Q	G	Q	.	D	F	N	G	A	A	S	N	.	80																																						
NTDB	id	378	SMU	RS02690	WP	002263569.1	HL	YANVNC	QKKQ	ID	LCQNCYQ	I...	M	K	T	D	P	E	N	G	P	L	N	H	.	S	Q	N	S	S		I	N	P	F	F	D	.	D	F	F	G	D	.	L	N	N	F	R	.	A	F	N	N	Q	D	L	P	.	79																																				
NTDB	id	241	SP	RS04015	WP	000882523.1	HL	YTNLNG	KKKQ	ID	LCQNCYK	I...	I	K	T	D	P	N	S	L	F	K	G	M	T	.	D	L	N	N	R	D		F	D	P	.	F	G	D	F	F	N	D	.	L	N	N	F	R	P	S	S	N	..	T	P	.	76																																					
NTDB	id	281	KZH43	RS03550	WP	000882517.1	HL	YTNLNG	KKKQ	ID	LCQNCYK	I...	I	K	T	D	P	N	S	L	F	K	G	M	T	.	D	L	N	N	R	D		F	D	P	.	F	G	D	F	F	N	D	.	L	N	N	F	R	P	S	S	N	..	T	P	.	76																																					
NTDB	id	245	SPD	RS03860	WP	000882517.1	HL	YTNLNG	KKKQ	ID	LCQNCYK	I...	I	K	T	D	P	N	S	L	F	K	G	M	T	.	D	L	N	N	R	D		F	D	P	.	F	G	D	F	F	N	D	.	L	N	N	F	R	P	S	S	N	..	T	P	.	76																																					
NTDB	id	243	SPR	RS03635	WP	000882517.1	HL	YTNLNG	KKKQ	ID	LCQNCYK	I...	I	K	T	D	P	N	S	L	F	K	G	M	T	.	D	L	N	N	R	D		F	D	P	.	F	G	D	F	F	N	D	.	L	N	N	F	R	P	S	S	N	..	T	P	.	76																																					
NTDB	id	87332	K6K00	RS00515	WP	003235011.1	Q	T	I	H	Y	T	P	R	A	K	K	V	I	E	L	S	M	D	E	A	R	K	L	G	H	S	Y	V	G	T	E	H	I	L	L	G	L	I	R	E	G	E	G	V	A	A	R	V	.	L	N	N	L	G	V	S	L	N	K	A	R	Q	Q	V	L	Q	L		L	G	S	N	E	T		147														
NTDB	id	85	BSU	O0860	NP	387967.1	Q	T	I	H	Y	T	P	R	A	K	K	V	I	E	L	S	M	D	E	A	R	K	L	G	H	S	Y	V	G	T	E	H	I	L	L	G	L	I	R	E	G	E	G	V	A	A	R	V	.	L	N	N	L	G	V	S	L	N	K	A	R	Q	Q	V	L	Q	L		L	G	S	N	E	T		147														
NTDB	id	610	V4T04	RS10165	WP	012897346.1	S	T	L	R	F	S	P	R	A	E	E	V	M	T	A	A	S	F	L	A	I	H	N	N	S	E	A	V	G	T	E	H	L	Y	A	L	L	Q	V	E	D	.	G	F	G	L	Q	L	L	K	L		Q	K	I	N	I	V	S	L	R	K	E	.	L	E	K	R	T	.	G	L	K	V	P	E	S	K	.	153										
NTDB	id	290	KZH43	RS10025	WP	001109677.1	T	E	L	P	F	S	R	R	L	Q	I	L	F	D	E	A	E	Y	V	A	S	.	V	V	H	A	K	V	L	G	T	E	H	V	L	Y	A	I	L	H	D	.	S	N	A	L	A	T	R	.	L	E	R	A	G	F	S	Y	E	D	K	K	D	Q	V	K	I	A	A	L	R	R	N	.	L	E	E	R	A	G	W	T	R	E	D	L	K	A	.	160
NTDB	id	289	SPD	RS10700	WP	001109677.1	T	E	L	P	F	S	R	R	L	Q	I																																																																															

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 87332 K6K00 RS00515 WP 003235011.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus

consensus

[illegible]

151
158
157
157
157
157
207
207
220
233
233
233
237
240
240

logo

```
NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 87332 K6K00 RS00515 WP 003235011.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
```

consensus

236
243
242
242
242
242
291
291
305
318
318
318
322
325
325

logo

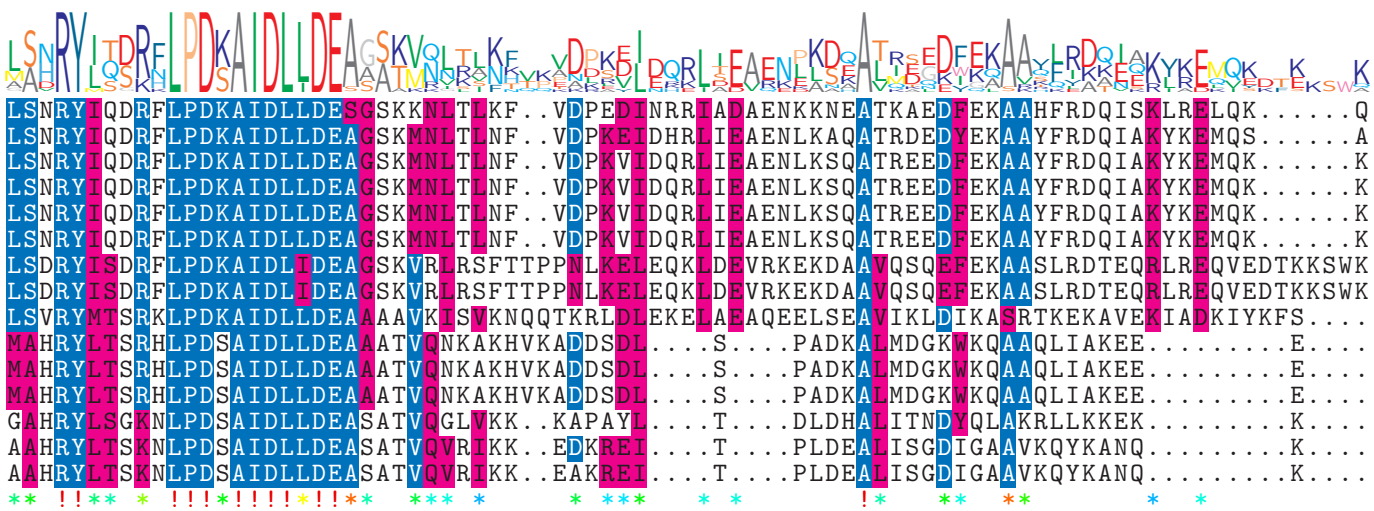
NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 87332 K6K00 RS00515 WP 003235011.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



320
327
326
326
326
326
376
376
390
403
403
403
407
410
410

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 87332 K6K00 RS00515 WP 003235011.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



397
404
403
403
403
403
461
461
471
467
467
467
469
472
472

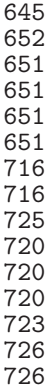
[illegible]

NTDB id	601	KW2	RS02615	WP	021036805.1	TGVGKTELAKQLAKE	LFGSS	E	S	MIRFDMSEYMEKH	SV	AKL	I	GAPPGYVG	YE	A	AGQLTEKVR	RNPYS	L	I	LLDETEKAHPDV	MH	MFL	567																																																				
NTDB id	378	SMU	RS02690	WP	002263569.1	TGVGKTEL	SKQLAIELFGS	E	D	S	MIRFDMSEYMEKH	AV	AKLV	GAPPGYVG	YE	A	AGQLTEKVR	RNPYS	L	I	LLDEVEKAHPDV	MH	MFL	574																																																				
NTDB id	241	SP	RS04015	WP	000882523.1	TGVGKTEL	SKQLAIELFGS	A	D	S	MIRFDMSEYMEKH	SV	AKLV	GAPPGYVG	YD	E	AGQLTEKVR	HNPYS	L	I	LLDEVEKAHPDV	MH	MFL	573																																																				
NTDB id	281	KZH43	RS03550	WP	000882517.1	TGVGKTEL	SKQLAIELFGS	A	D	S	MIRFDMSEYMEKH	SV	AKLV	GAPPGYVG	YD	E	AGQLTEKVR	HNPYS	L	I	LLDEVEKAHPDV	MH	MFL	573																																																				
NTDB id	245	SPD	RS03860	WP	000882517.1	TGVGKTEL	SKQLAIELFGS	A	D	S	MIRFDMSEYMEKH	SV	AKLV	GAPPGYVG	YD	E	AGQLTEKVR	HNPYS	L	I	LLDEVEKAHPDV	MH	MFL	573																																																				
NTDB id	243	SPR	RS03635	WP	000882517.1	TGVGKTEL	SKQLAIELFGS	A	D	S	MIRFDMSEYMEKH	SV	AKLV	GAPPGYVG	YD	E	AGQLTEKVR	HNPYS	L	I	LLDEVEKAHPDV	MH	MFL	573																																																				
NTDB id	87332	K6K00	RS00515	WP	003235011.1	TGVGKTELARALA	E	S	I	F	G	D	E	S	MIRIDMSEYMEKH	ST	SRLVGS	P	P	G	Y	V	G	D	E	G	Q	L	T	E	K	V	R	K	P	Y	S	V	L	L	D	E	T	E	K	A	H	P	D	V	F	N	I	L	631																					
NTDB id	85	BSU	O0860	NP	387967.1	TGVGKTELARALA	E	S	I	F	G	D	E	S	MIRIDMSEYMEKH	ST	SRLVGS	P	P	G	Y	V	G	D	E	G	Q	L	T	E	K	V	R	K	P	Y	S	V	L	L	D	E	T	E	K	A	H	P	D	V	F	N	I	L	631																					
NTDB id	610	V4T04	RS10165	WP	012897346.1	TGVGKTELAKALAD	S	V	F	G	S	D	N	M	I	R	V	D	M	S	E	F	M	E	K	H	S	T	S	R	L	I	G	A	P	P	G	Y	V	G	D	E	G	Q	L	T	E	K	V	R	N	K	P	Y	S	V	L	L	D	E	V	E	K	A	H	P	D	V	F	N	I	M	L	640		
NTDB id	290	KZH43	RS10025	WP	001109677.1	TGVGKTELAKALA	E	V	L	F	D	D	E	S	A	L	I	R	F	D	M	S	E	M	E	K	F	A	A	S	R	L	N	G	A	P	P	G	Y	V	G	Y	E	G	G	E	L	T	E	K	V	R	N	K	P	Y	S	V	L	L	F	D	E	V	E	K	A	H	P	D	I	F	N	V	L	635
NTDB id	289	SPD	RS10700	WP	001109677.1	TGVGKTELAKALA	E	V	L	F	D	D	E	S	A	L	I	R	F	D	M	S	E	M	E	K	F	A	A	S	R	L	N	G	A	P	P	G	Y	V	G	Y	E	G	G	E	L	T	E	K	V	R	N	K	P	Y	S	V	L	L	F	D	E	V	E	K	A	H	P	D	I	F	N	V	L	635
NTDB id	287	SP	RS11210	WP	001109712.1	TGVGKTELAKALA	E	V	L	F	D	D	E	S	A	L	I	R	F	D	M	S	E	M	E	K	F	A	A	S	R	L	N	G	A	P	P	G	Y	V	G	Y	E	G	G	E	L	T	E	K	V	R	N	K	P	Y	S	V	L	L	F	D	E	V	E	K	A	H	P	D	I	F	N	V	L	635
NTDB id	377	SMU	RS09275	WP	002262344.1	TGVGKTELAKALA	E	V	L	F	D	D	E	S	A	L	I	R	F	D	M	S	E	M	E	K	F	A	A	S	R	L	N	G	A	P	P	G	Y	V	G	Y	E	G	G	E	L	T	E	K	V	R	N	K	P	Y	S	V	L	L	F	D	E	V	E	K	A	H	P	D	I	F	N	I	L	638
NTDB id	297	STER	RS00545	WP	011680614.1	TGVGKTELAKALA	E	V	L	F	D																																																																	

```

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 87332 K6K00 RS00515 WP 003235011.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus

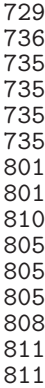
```



```

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 87332 K6K00 RS00515 WP 003235011.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus

```



logo

NTDB id	601	KW2	RS02615	WP	021036805.1	ISNQTQETAETTDEEVPAE	748
NTDB id	378	SMU	RS02690	WP	002263569.1	VIKASNK.VETVTKATSD.	753
NTDB id	241	SP	RS04015	WP	000882523.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id	281	KZH43	RS03550	WP	000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id	245	SPD	RS03860	WP	000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id	243	SPR	RS03635	WP	000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id	87332	K6K00	RS00515	WP	003235011.1	VVKTTAKTN.....	810
NTDB id	85	BSU	00860	NP	387967.1	VVKTTAKTN.....	810
NTDB id	610	V4T04	RS10165	WP	012897346.1	KIAQIV.....	816
NTDB id	290	KZH43	RS10025	WP	001109677.1	KFDIA.....	810
NTDB id	289	SPD	RS10700	WP	001109677.1	KFDIA.....	810
NTDB id	287	SP	RS11210	WP	001109712.1	KFDIA.....	810
NTDB id	377	SMU	RS09275	WP	002262344.1	KFDIV.....	813
NTDB id	297	STER	RS00545	WP	011680614.1	TFTVV.....	816
NTDB id	329	STU	RS10020	WP	011225298.1	TFTVV.....	816
consensus							

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