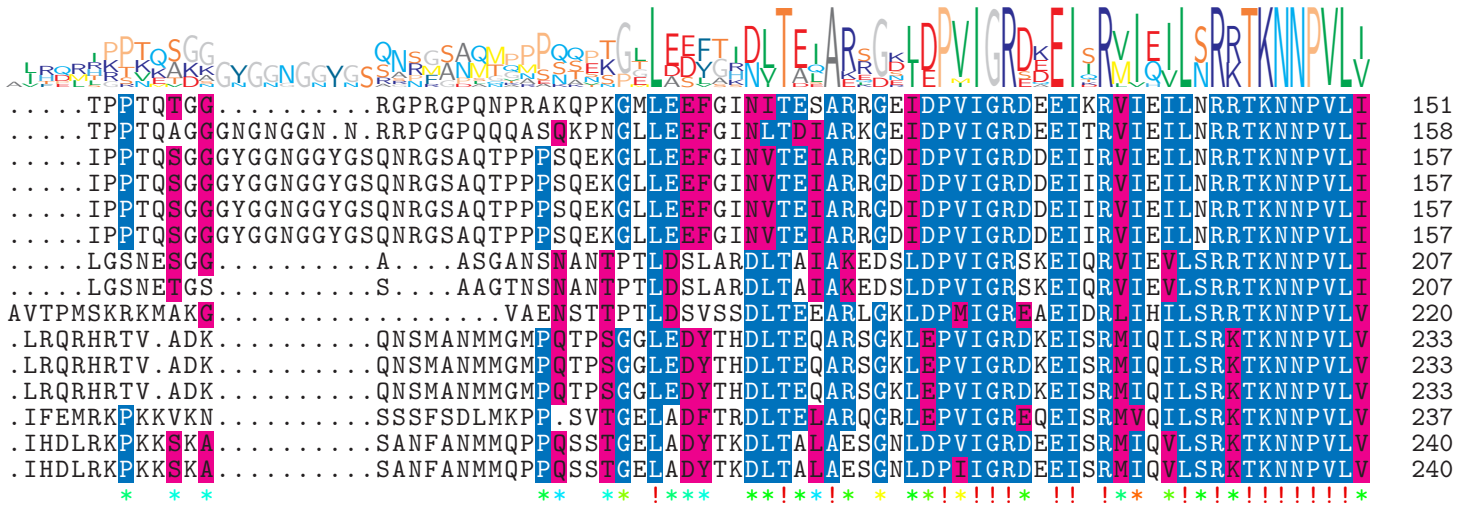



```

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 420482 M654 RS23420 WP 026586092.1
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

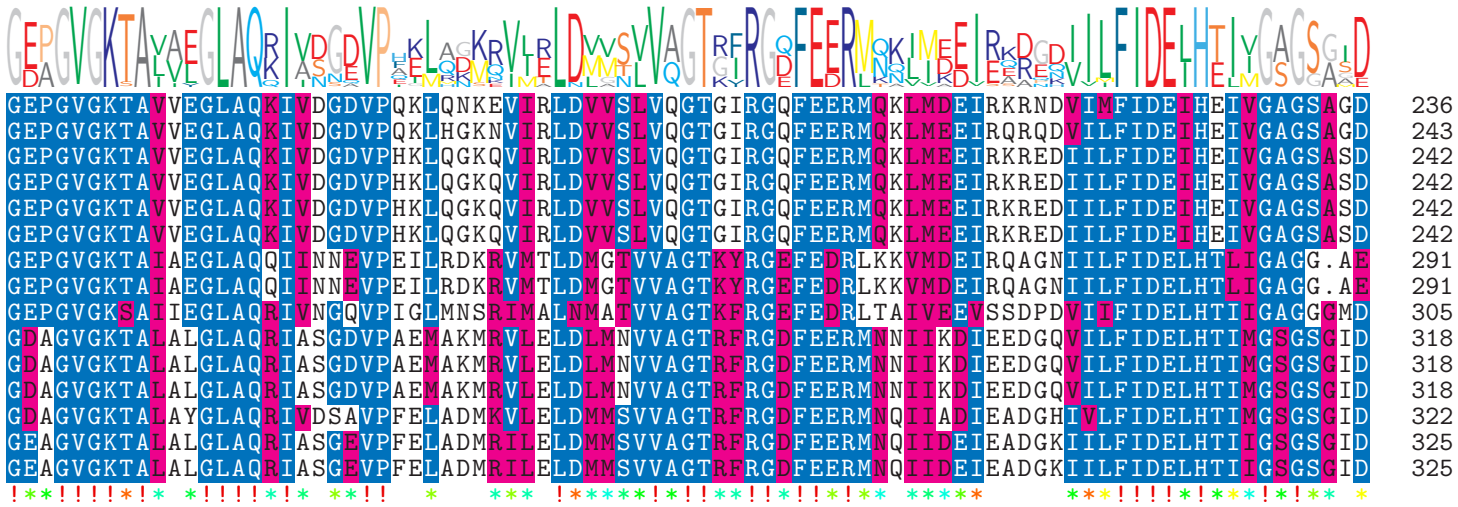
```



```

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 420482 M654 RS23420 WP 026586092.1
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

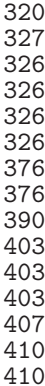
```



```

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 420482 M654 RS23420 WP 026586092.1
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

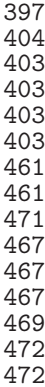
```



```

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 420482 M654 RS23420 WP 026586092.1
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	E	V	T	D	E	M	P	V	I	T	E	K	D	I	E	Q	I	V	E	Q	K	T	Q	I	P	V	G	D	L	K	E	K	E	Q	T	Q	L	I	N	L	A	D	D	L	K	A	H	V	I	G	Q	D	E	A	V	D	K	I	S	K	A	I	R	R	S	R	V	G	L	G	K	P	N	R	P	I	G	S	F	L	F	V	G	P		482																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NTDB	id	378	SMU	RS02690	WP	002263569.1	K	L	D	K	E	N	T	P	V	I	T	E	K	N	I	E	V	I	E	Q	K	T	N	I	P	V	G	E	L	K	E	K	E	Q	S	Q	L	I	H	L	A	D	D	L	K	T	R	V	I	G	Q	D	A	A	V	D	K	I	A	K	A	I	R	R	N	R	V	G	L	G	T	P	N	R	P	I	G	S	F	L	F	V	G	P		489																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NTDB	id	241	SP	RS04015	WP	000882523.1	K	I	T	D	Q	D	T	P	S	I	S	E	K	T	I	E	H	I	I	E	Q	K	T	N	I	P	V	G	D	L	K	E	K	E	Q	S	Q	L	I	H	L	A	E	D	L	K	S	H	V	I	G	Q	D	D	A	V	D	K	I	A	K	A	I	R	R	N	R	V	G	L	G	T	P	N	R	P	I	G	S	F	L	F	V	G	P		488																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
NTDB	id	281	KZH43	RS03550	WP	000882517.1	K	I	T	D	Q	D	T	P	I	I	S	E	K	T	I	E	H	I	I	E	Q	K	T	N	I	P	V	G	D	L	K	E	K	E	Q	S	Q	L	I	H	L	A	E	D	L	K	S	H	V	I	G	Q	D	D	A	V	D	K	I	A	K	A	I	R	R	N	R	V	G	L	G	T	P	N	R	P	I	G	S	F	L	F	V	G	P		488																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
NTDB	id	245	SPD	RS03860	WP	000882517.1	K	I	T	D	Q	D	T	P	I	I	S	E	K	T	I	E	H	I	I	E	Q	K	T	N	I	P	V	G	D	L	K	E	K	E	Q	S	Q	L	I	H	L	A	E	D	L	K	S	H	V	I	G	Q	D	D	A	V	D	K	I	A	K	A	I	R	R	N	R	V	G	L	G	T	P	N	R	P	I	G	S	F	L	F	V	G	P		488																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
NTDB	id	243	SPR	RS03635	WP	000882517.1	K	I	T	D	Q	D	T	P	I	I	S	E	K	T	I	E	H	I	I	E	Q	K	T	N	I	P	V	G	D	L	K	E	K	E	Q	S	Q	L	I	H	L	A	E	D	L	K	S	H	V	I	G	Q	D	D	A	V	D	K	I	A	K	A	I	R	R	N	R	V	G	L	G	T	P	N	R	P	I	G	S	F	L	F	V	G	P		488																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
NTDB	id	420482	M654	RS23420	WP	026586092.1	E	K	Q	G	Q	E	N	S	E	V	T	V	E	D	I	A	M	V	V	S	S	W	T	G	V	P	V	S	K	I	A	Q	T	E	T	D	K	L	N	M	E	Q	I	L	H	S	R	V	I	G	Q	D	E	A	V	V	A	K	A	V	R	R	A	R	A	C	L	K	D	P	K	R	P	I	G	S	F	I	F	L	G	P		546																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
NTDB	id	85	BSU	00860	NP	387967.1	E	K	Q	G	Q	E	N	S	E	V	T	V	D	D	I	A	M	V	V	S	S	W	T	G	V	P	V	S	K	I	A	Q	T	E	T	D	K	L	N	M	N	E	I	L	H	S	R	V	I	G	Q	D	E	A	V	V	A	K	A	V	R	R	A	R	A	C	L	K	D	P	K	R	P	I	G	S	F	I	F	L	G	P		546																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
NTDB	id	610	V4T04	RS10165	WP	012897346.1	.	V	K	E	D	K	R	Q	E	V	T	D	Q	A	V	V	A	S	T	L	T	G	V	P	I	T	Q	M	T	K	S	E	S	D	R	L	I	N	E	K	E	L	H	K	R	V	V	G	Q	E	E	A	T	S	A	V	S	A	I	R	A	R	S	G	V	A	D	S	R	P	M	G	S	F	M	F	L	G	P		555																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
NTDB	id	290	KZH43	RS10025	WP	001109677.1	.	V	P	V	.	Y	K	D	L	V	T	E	S	D	I	L	T	T	L	S	R	L	S	G	I	P	V	Q	K	L	T	Q	T	D	A	K	K	Y	L	N	L	E	A	E	L	H	K	R	V	I	G	Q	D	Q	A	V	S	S	I	S	A	I	R	R	N	Q	S	G	I	R	S	H	K	R	P	I	G	S	F	M	F	L	G	P		550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NTDB	id	289	SPD	RS10700	WP	001109677.1	.	V	P	V	.	Y	K	D	L	V	T	E	S	D	I	L	T	T	L	S	R	L	S	G	I	P	V	Q	K	L	T	Q	T	D	A	K	K	Y	L	N	L	E	A	E	L	H	K	R	V	I	G	Q	D	Q	A	V	S	S	I	S	A	I	R	R	N	Q	S	G	I	R	S	H	K	R	P	I	G	S	F	M	F	L	G	P		550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NTDB	id	287	SP	RS11210	WP	001109712.1	.	V	P	V	.	Y	K	D	L	V	T	E	S	D	I	L	T	T	L	S	R	L	S	G	I	P	V	Q	K	L	T	Q	T	D	A	K	K	Y	L	N	L	E	A	E	L	H	K	R	V	I	G	Q	D	Q	A	V	S	S	I	S	A	I	R	R	N	Q	S	G	I	R	S	H	K	R	P	I	G	S	F	M	F	L	G	P		550																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NTDB	id	377	SMU	RS09275	WP	002262344.1	.	P	L	L	K	K	R	A	E	V	K	E	E	D	I	L	A	T	L	S	K	L	S	G	I	P	V	K	K	L	T	Q	A	D	S	K	K	Y	L	N	L	E	R	E	L	H	K	R	V	I	G	Q	D	D	A	V	S	S	I	S	A	I	R	R	N	Q	S	G	I	R	V	G	K	R	P	I	G	S	F	M	F	L	G	P		553																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NTDB	id	297	STER	RS00545	WP	011680614.1	.	A	K	F	P	K	P	A	L	V	D	A	Q	I	M	Q	T	L	S	R	L	S	G	I	P	V	E	K	M	T	Q	T	D	S	K	R	Y	L	N	L	E	S	E	L	H	K	R	V	I	G	Q	D	E	A	V	S	A	I	S	A	I	R	R	N	Q	S	G	I	R	T	G	K	R	P	I	G	S	F	M	F	L	G	P		556																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
NTDB	id	329	STU	RS10020	WP	011225298.1	.	A	K	F	P	K	P	A	L	V	D	A	Q	I	M	Q	T	L	S	R	L	S	G	I	P	V	E	K	M	T	Q	T	D	S	K	R	Y	L	N	L	E	S	E	L	H	K	R	V	I	G	Q	D	E	A	V	S	A	I	S	A	I	R	R	N	Q	S	G	I	R	T	G	K	R	P	I	G	S	F	M	F	L	G	P		556																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
consensus							*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

NTDB id 601 KW2 RS02615 WP 021036805.1	TGVGKTELAKQLAKELFGSSES	MIRFDMSEYMEKHSV	AKLIGAPPGYVGYE	EAGQLTERVR	RNPYS	LILLDETEKAHPDV	MHMFL	567
NTDB id 378 SMU RS02690 WP 002263569.1	TGVGKTELAKQLAIELFGS	EDSMIRFDMSEYMEKHAV	AKLVGAPPGYVGYE	EAGQLTEKVR	RNPYS	LILLDEVEKAHPDV	MHMFL	574
NTDB id 241 SP RS04015 WP 000882523.1	TGVGKTELAKQLAIELFGS	ADSMIRFDMSEYMEKHSV	AKLVGAPPGYVGYDE	AAGQLTEKVR	RNPYS	LILLDEVEKAHPDV	MHMFL	573
NTDB id 281 KZH43 RS03550 WP 000882517.1	TGVGKTELAKQLAIELFGS	ADSMIRFDMSEYMEKHSV	AKLVGAPPGYVGYDE	AAGQLTEKVR	RNPYS	LILLDEVEKAHPDV	MHMFL	573
NTDB id 245 SPD RS03860 WP 000882517.1	TGVGKTELAKQLAIELFGS	ADSMIRFDMSEYMEKHSV	AKLVGAPPGYVGYDE	AAGQLTEKVR	RNPYS	LILLDEVEKAHPDV	MHMFL	573
NTDB id 243 SPR RS03635 WP 000882517.1	TGVGKTELAKQLAIELFGS	ADSMIRFDMSEYMEKHSV	AKLVGAPPGYVGYDE	AAGQLTEKVR	RNPYS	LILLDEVEKAHPDV	MHMFL	573
NTDB id 420482 M654 RS23420 WP 026586092.1	TGVGKTELARALAESIFGDE	EAMIRIDMSEYMEKHST	SRLVGSPPGYVGYDE	EGGQLTEKVR	RKPYSV	VLLDETEKAHPDV	FNILL	631
NTDB id 85 BSU 00860 NP 387967.1	TGVGKTELARALAESIFGDE	ESMIRIDMSEYMEKHST	SRLVGSPPGYVGYDE	EGGQLTEKVR	RKPYSV	VLLDETEKAHPDV	FNILL	631
NTDB id 610 V4T04 RS10165 WP 012897346.1	TGVGKTELAKALADS	VFGSENMIRVDMSEFMEKHST	SRLIGAPPGYVGYDE	EGGQLTER	VRNKPYSV	VLLDEVEKAHPDV	FNILL	640
NTDB id 290 KZH43 RS10025 WP 001109677.1	TGVGKTELAKALAEVLFD	DESALIRFDMSEYMEKFAA	SRLNGAPPGYVGYE	EGGELTEKVR	NKPYSV	LLFDEVEKAHPD	IFNVLL	635
NTDB id 289 SPD RS10700 WP 001109677.1	TGVGKTELAKALAEVLFD	DESALIRFDMSEYMEKFAA	SRLNGAPPGYVGYE	EGGELTEKVR	NKPYSV	LLFDEVEKAHPD	IFNVLL	635
NTDB id 287 SP RS11210 WP 001109712.1	TGVGKTELAKALAEVLFD	DESALIRFDMSEYMEKFAA	SRLNGAPPGYVGYE	EGGELTEKVR	NKPYSV	LLFDEVEKAHPD	IFNVLL	635
NTDB id 377 SMU RS09275 WP 002262344.1	TGVGKTELAKALAEVLFD	DESALIRFDMSEYMEKFAA	SRLNGAPPGYVGYE	EGGELTEKVR	NKPYSV	LLFDEVEKAHPD	IFNVLL	638
NTDB id 297 STER RS00545 WP 011680614.1	TGVGKTELAKALAEVLFD	DESALLRFDMSEYMEKFAA	SRLNGAPPGYVGYDE	EGGELTEKVR	NKPYSV	LLFDETEKAHPD	IFNVLL	641
NTDB id 329 STU RS10020 WP 011225298.1	TGVGKTELAKALAEVLFD	DESALLRFDMSEYMEKFAA	SRLNGAPPGYVGYDE	EGGELTEKVR	NKPYSV	LLFDETEKAHPD	IFNVLL	641
consensus		***	* * *	***	***	***	***	

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	ISNQTQETAETTDDEEVP	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 420482 M654 RS23420 WP 026586092.1	VVKTEAKTN.....	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		



-  non conserved
-  similar
-  ≥ 50% conserved