

```
NTDB id 1177 A1552VC RS01165 WP 000422572.1
NTDB id 1203 PSJM300 01605 AFN76401.1
NTDB id 1019 ACIAD RS04205 WP 004922051.1
NTDB id 1307 DR RS10055 WP 010888596.1
NTDB id 1086 NMV RS00245 WP 002218487.1
NTDB id 1116 NGFG RS10615 WP 003690200.1
NTDB id 1185 GTF74 RS11940 WP 000350195.1
NTDB id 1176 A1552VC RS01160 WP 000350195.1
NTDB id 1283 ACE17W RS02630 WP 010947729.1
NTDB id 1259 GC085 RS10305 WP 010947729.1
NTDB id 1202 PSJM300 01600 AFN76400.1
NTDB id 1194 PAKAF RS01995 WP 003084552.1
NTDB id 1020 ACIAD RS04210 WP 011182164.1
NTDB id 335727 EQ841 RS14590 WP 000355489.1
NTDB id 1060 ABD1 RS04380 WP 000355489.1
NTDB id 1040 HON27 RS13360 WP 000355489.1
NTDB id 1081 FDQ49 RS05335 WP 006581387.1
```



Sequence	Position 12
MEINCYLDGMTHKASDLYITVGAPILYRVDGELRAQGEAL.SVADVTLAHAMMODARQAETKQTREANFAVVRD	73
MEFEKILRLMVEKGGSDLFITAGVPPSMKVNGKILPINKTPMSPEMTRETIVHGVMNEQQRREFTENHECNFAISAR	76
MDFNDLLNLMAHKHASDLFITAGVEPSLKINGEITTPVSKTKLDGDMIAQLIDSITTTQKQRQFEITHECNFAILNR	76
MTSGIDITDILRLADKGSADIILAGLPPQFKLSGDYDAQGFEP.LSADTRKLMYSMMNERQQRIFEKRELDDFSFAIG	80
MQITDLLAFGAKNKASDLHLSSGISPMIRVHGDMMRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP	76
MQITDLLAFGAKNKASDLHLSSGISPMIRVHGDMMRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP	76
MDIAELLEFSVKHNASDLHLSSAGVPPMVRIDGVRKLGVPFATHSDVHRLIFEIMNDAQRSEYEKKLEVDFSFELP	76
MDIAELLEFSVKHNASDLHLSSAGVPPMVRIDGVRKLGVPFATHSDVHRLIFEIMNDAQRSEYEKKLEVDFSFELP	76
MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLLEHKDVIKIITYDIMNDRQRKEYEEFFETDFSFEIA	76
MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLLEHKDVIKIITYDIMNDRQRKEYEEFFETDFSFEIA	76
MDITELLAFSAKKGASDLHLSSGLPPMIRVDGVRRINLPAMDHKQVHALIYDIMNDKQRKDFEEFLETDFSFEVP	76
MDITELLAFSAKKGASDLHLSSAGLPPMIRVDGVRRINLPPLLEHKQVHALIYDIMNDKQRKDFEEFLETDFSFEVP	76
MDITELLAFSVQNRASDLHLSSAGIPPMIRVDGEVRRINLPAMDHSEVHNLIYDIMNDKQRDYEEKLETDFSFEVP	76
MDITELLAFSVKNASDLHLSSAGMPPMIRVDGEVRRINLPALPHKDVHRLVYDIMNDKQRDYEEKLETDFSFEVP	76
MDITELLAFSVKNASDLHLSSAGMPPMIRVDGEVRRINLPALPHKDVHRLVYDIMNDKQRDYEEKLETDFSFEVP	76
MDITELLAFSVKNASDLHLSSAGMPPMIRVDGEVRRINLPALPHKDVHRLVYDIMNDKQRDYEEKLETDFSFEVP	76



```
NTDB id 1177 A1552VC RS01165 WP 000422572.1
NTDB id 1203 PSJM300 01605 AFN76401.1
NTDB id 1019 ACIAD RS04205 WP 004922051.1
NTDB id 1307 DR RS10055 WP 010888596.1
NTDB id 1086 NMV RS00245 WP 002218487.1
NTDB id 1116 NGFG RS10615 WP 003690200.1
NTDB id 1185 GTF74 RS11940 WP 000350195.1
NTDB id 1176 A1552VC RS01160 WP 000350195.1
NTDB id 1283 ACE17W RS02630 WP 010947729.1
NTDB id 1259 GC085 RS10305 WP 010947729.1
NTDB id 1202 PSJM300 01600 AFN76400.1
NTDB id 1194 PAKAF RS01995 WP 003084552.1
NTDB id 1020 ACIAD RS04210 WP 011182164.1
NTDB id 335727 EQ841 RS14590 WP 000355489.1
NTDB id 1060 ABD1 RS04380 WP 000355489.1
NTDB id 1040 HON27 RS13360 WP 000355489.1
NTDB id 1081 FDQ49 RS05335 WP 006581387.1
```

[illegible]

logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1	LT	V	E	D	P	I	E	F	V	H	E	H	K	R	C	I	V	T	Q	R	E	V	G	L	D	T	S	E	Y	E	V	A	L	K	N	S	L	R	Q	A	P	D	M	I	L	I	G	E	I	R	S	R	E	T	M	E	Y	A	M	T	F	A	E	T	G	H	L	C	M	A	T	L	H	A	N	N	A	N	Q	233																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1203 PSJM300 01605 AFN76401.1	IS	I	E	D	P	I	E	F	I	H	Q	H	Q	N	C	I	V	T	Q	R	E	V	G	I	D	T	D	S	F	E	V	A	L	K	N	T	L	R	Q	A	P	D	V	I	L	I	G	E	V	R	T	R	E	T	M	D	H	A	V	A	F	A	E	T	G	H	L	C	L	A	T	L	H	A	N	N	A	N	Q	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1019 ACIAD RS04205 WP 004922051.1	IT	I	E	D	P	I	E	F	I	H	E	H	A	G	C	I	I	T	Q	R	E	V	G	I	D	T	D	S	F	E	I	A	L	K	N	T	L	R	Q	A	P	D	V	I	L	I	G	E	I	R	S	R	E	V	M	D	Y	A	L	A	F	A	E	T	G	H	L	V	F	A	T	L	H	A	N	N	A	N	Q	236																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1307 DR RS10055 WP 010888596.1	LT	I	E	D	P	I	E	F	M	H	P	N	K	A	S	I	I	N	Q	R	E	V	G	S	D	T	L	S	F	D	D	A	L	R	A	A	L	R	Q	A	P	D	V	I	L	V	G	E	M	R	D	P	E	T	I	K	A	A	V	T	A	A	E	T	G	H	L	V	M	G	T	L	H	T	N	S	A	P	E	239																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1086 NMV RS00245 WP 002218487.1	LT	I	E	D	P	I	E	F	V	H	Q	S	K	K	S	L	I	N	Q	R	E	L	H	Q	H	T	L	S	F	A	N	A	L	R	S	A	L	R	E	D	P	D	V	I	L	V	G	E	M	R	D	P	E	T	I	G	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	G	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1116 NGFG RS10615 WP 003690200.1	LT	I	E	D	P	I	E	F	V	H	Q	S	K	K	S	L	I	N	Q	R	E	L	H	Q	H	T	L	S	F	A	N	A	L	S	S	A	L	R	E	D	P	D	V	I	L	V	G	E	M	R	D	P	E	T	I	G	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	G	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1185 GTF74 RS11940 WP 000350195.1	LT	I	E	D	P	I	E	F	V	H	S	N	N	K	C	L	I	N	Q	R	E	V	H	R	D	T	H	S	F	K	N	A	L	R	S	A	L	R	E	D	P	D	V	I	L	V	G	E	L	R	D	Q	E	T	I	S	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	S	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1176 A1552VC RS01160 WP 000350195.1	LT	I	E	D	P	I	E	F	V	H	S	N	N	K	C	L	I	N	Q	R	E	V	H	R	D	T	H	S	F	K	N	A	L	R	S	A	L	R	E	D	P	D	V	I	L	V	G	E	L	R	D	Q	E	T	I	S	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	S	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1283 ACE17W RS02630 WP 010947729.1	L	T	V	E	D	P	I	E	F	V	H	Q	S	K	K	C	L	V	N	Q	R	E	V	H	K	D	T	L	S	F	N	A	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	L	R	D	L	E	T	I	R	L	A	M	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	N	S	A	T	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
NTDB id 1259 GC085 RS10305 WP 010947729.1	L	T	V	E	D	P	I	E	F	V	H	Q	S	K	K	C	L	V	N	Q	R	E	V	H	K	D	T	L	S	F	N	A	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	L	R	D	L	E	T	I	R	L	A	M	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	N	S	A	T	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
NTDB id 1202 PSJM300 01600 AFN76400.1	LT	I	E	D	P	I	E	F	V	H	E	S	K	K	C	L	V	N	Q	R	E	V	H	R	D	T	L	G	F	S	E	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	M	R	D	L	E	T	I	R	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1194 PAKAF RS01995 WP 003084552.1	LT	I	E	D	P	I	E	F	V	H	E	S	K	K	C	L	V	N	Q	R	E	V	H	R	D	T	L	G	F	S	E	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	M	R	D	L	E	T	I	R	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB id 1020 ACIAD RS04210 WP 011182164.1	L	T	V	E	D	P	I	E	F	V	H	E	P	K	K	C	L	I	N	Q	R	E	V	H	R	D	T	L	G	F	N	E	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	M	R	D	L	E	T	I	R	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
NTDB id 335727 EQ841 RS14590 WP 000355489.1	L	T	V	E	D	P	I	E	F	V	H	Q	S	K	K	C	L	I	N	Q	R	E	V	H	R	D	T	H	G	F	N	E	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	M	R	D	L	E	T	I	R	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
NTDB id 1060 ABD1 RS04380 WP 000355489.1	L	T	V	E	D	P	I	E	F	V	H	Q	S	K	K	C	L	I	N	Q	R	E	V	H	R	D	T	H	G	F	N	E	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	M	R	D	L	E	T	I	R	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
NTDB id 1040 HON27 RS13360 WP 000355489.1	L	T	V	E	D	P	I	E	F	V	H	Q	S	K	K	C	L	I	N	Q	R	E	V	H	R	D	T	H	G	F	N	E	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	M	R	D	L	E	T	I	R	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
NTDB id 1081 FDQ49 RS05335 WP 006581387.1	L	T	V	E	D	P	I	E	F	V	H	Q	S	K	K	C	L	I	N	Q	R	E	V	H	R	D	T	H	G	F	N	E	A	L	R	S	A	L	R	E	D	P	D	I	I	L	V	G	E	M	R	D	L	E	T	I	R	L	A	L	T	A	A	E	T	G	H	L	V	F	G	T	L	H	T	I	S	A	A	K	235																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
consensus	***	!	!	!	!	!	!	!	!	*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1	ALERILHLVLPKEQREQFLLDLSLNLKGVIAQQQLLRDKNKGKRGHGVFEVLINSPRIADLIRRGELHELKATMARSQEVGMQ	313
NTDB id 1203 PSJM300 01605 AFN76401.1	ALDRIINFFPADRRQNQVWMDLSLNLKAIVAQQQLVPTPDGKGRRRAVIEVLINTPLAADLIRKGEVHELKGLMKRSTDLGMQ	315
NTDB id 1019 ACIAD RS04205 WP 004922051.1	TLERIIHFFDADRHHQIFMDLSLNLKAVISQQLIPTHDQSSRAAEVLELINTPLLSDIYRQGEIKYKIKELMARSQELGMQ	316
NTDB id 1307 DR RS10055 WP 010888596.1	SIDRIVDVFPPEEQEQEIRVQLANNLVAVMTQQLLIPRADGQGRVLAYEILLANPAVRALIREGKTFQITSVMTGTAREGMV	319
NTDB id 1086 NMV RS00245 WP 002218487.1	TVDRIVDVFPAGEKEMVRSMLSESLTAVISQNLKTKTHDGNGRVASHEILIANPAVRNLIRENKITQINSVLQTTGQASGMQ	315
NTDB id 1116 NGFG RS10615 WP 003690200.1	TVDRIVDVFPAGEKEMVRSMLSESLTAVISQNLKTKTHDGNGRVASHEILIANPAVRNLIRENKITQINSVLQTTGQASGMQ	315
NTDB id 1185 GTF74 RS11940 WP 000350195.1	TIDRIIDVFPGSDKDMVRSMLSESLRAVIAQKLLKR.VGGGRVACHEIMLATPAIRNLIREDKVAQMYSIIQTGAHGMQ	314
NTDB id 1176 A1552VC RS01160 WP 000350195.1	TIDRIIDVFPGSDKDMVRSMLSESLRAVIAQKLLKR.VGGGRVACHEIMLATPAIRNLIREDKVAQMYSIIQTGAHGMQ	314
NTDB id 1283 ACE17W RS02630 WP 010947729.1	TINRIIDVFPAAEEKSMVRSMLSESLQAVVAQSLKK.NKGGRVAALEIMMCTGAIRNLIREDKIAQMYSIIQTGGAKGMQ	314
NTDB id 1259 GC085 RS10305 WP 010947729.1	TINRIIDVFPAAEEKSMVRSMLSESLQAVVAQSLKK.NKGGRVAALEIMMCTGAIRNLIREDKIAQMYSIIQTGGAKGMQ	314
NTDB id 1202 PSJM300 01600 AFN76400.1	TIDRVVDVFPAAEEKSMVRSMLSESLQAVISQTLLKK.VGGGRVAAHEIMIGTPAIRNLIREDKVAQMYSIIQTGGSLGMQ	314
NTDB id 1194 PAKAF RS01995 WP 003084552.1	TIDRVVDVFPAAEEKAMVRSMLSESLQSVISQTLTKK.IGGGRVAAHEIMIGTPAIRNLIREDKVAQMYSIIQTGGSLGMQ	314
NTDB id 1020 ACIAD RS04210 WP 011182164.1	TIDRIIDVFPAAEEKDMVRTMLSESLQAVISQTLLKK.EGGGRVAAHEIMIGIPAIRNLIREGKVAQMYSIIQTGATHGMT	314
NTDB id 335727 EQ841 RS14590 WP 000355489.1	TIDRVIDVFPAAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSIIQTGANHGMT	314
NTDB id 1060 ABD1 RS04380 WP 000355489.1	TIDRVIDVFPAAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSIIQTGANHGMT	314
NTDB id 1040 HON27 RS13360 WP 000355489.1	TIDRVIDVFPAAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSIIQTGANHGMT	314
NTDB id 1081 FDQ49 RS05335 WP 006581387.1	TIDRVIDVFPAAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSIIQTGANHGMT	314
consensus	***!*****!***!***!****!****!*****!***!*****	

logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1	TFDQALYQLVVDKISEQDALHSADSANDLRLMLKTK.RGDDY...GSGSLQNVKI.....DME.....	368
NTDB id 1203 PSJM300 01605 AFN76401.1	TFDQALYNLYVQGEITYEDALLHADSSNDLRLMIKLG.SETDGEHLTSVS.QGLTL.....EMSDDDPGRSFR....	381
NTDB id 1019 ACIAD RS04205 WP 004922051.1	TFDQALFDLYDHQHSYADALKHADSPNNLRQLIKLS.EEANKPLDNRRERMSEMER.....KMTFDGQRRNLK....	383
NTDB id 1307 DR RS10055 WP 010888596.1	TMDAYLAGLFRHLITYDKGLERAIDPKFARLANDASAGLGG.....ASMTPAAPPVPAYNSASSSSTGRGGDFGRGAA	394
NTDB id 1086 NMV RS00245 WP 002218487.1	TMDQSLQSLVRQGLIAPEVARRRAQNSESMSF.....	347
NTDB id 1116 NGFG RS10615 WP 003690200.1	TMDQSLQSLVRQGLIAPEAARRRAQNSESMSF.....	347
NTDB id 1185 GTF74 RS11940 WP 000350195.1	TMEQNAKQLIARGVVDAQEVQSKIELDLKAF.....	345
NTDB id 1176 A1552VC RS01160 WP 000350195.1	TMEQNAKQLIARGVVDAQEVQSKIELDLKAF.....	345
NTDB id 1283 ACE17W RS02630 WP 010947729.1	TLDQHLTELVNKNIISKHTAHEAALNK.SLF.....	344
NTDB id 1259 GC085 RS10305 WP 010947729.1	TLDQHLTELVNKNIISKHTAHEAALNK.SLF.....	344
NTDB id 1202 PSJM300 01600 AFN76400.1	TLDQSLKGLIAKGLISRDSAKEKAKQP.ENF.....	344
NTDB id 1194 PAKAF RS01995 WP 003084552.1	TLDQSLKGLIAKGLISRDSAKEKAKQP.ENF.....	344
NTDB id 1020 ACIAD RS04210 WP 011182164.1	TLDQSLKGLIAKGLISRDSAKEKAKQP.ENF.....	344
NTDB id 335727 EQ841 RS14590 WP 000355489.1	TLDQSLKGLVARGVISPQTARTAAKQP.ESFL.....	345
NTDB id 1060 ABD1 RS04380 WP 000355489.1	TLDQSLKGLVARGVISPQTARTAAKQP.ESFL.....	345
NTDB id 1040 HON27 RS13360 WP 000355489.1	TLDQSLKGLVARGVISPQTARTAAKQP.ESFL.....	345
NTDB id 1081 FDQ49 RS05335 WP 006581387.1	TLDQSLKGLVARGVISPQTARTAAKQP.ESFL.....	345
consensus	!*** * !* ***** * *	

logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1	APATPAAPAAAGRSEPGRAGGFGRR	368
NTDB id 1203 PSJM300 01605 AFN76401.1	.....	381
NTDB id 1019 ACIAD RS04205 WP 004922051.1	.....	383
NTDB id 1307 DR RS10055 WP 010888596.1	APATPAAPAAAGRSEPGRAGGFGRR	418
NTDB id 1086 NMV RS00245 WP 002218487.1	.....	347
NTDB id 1116 NGFG RS10615 WP 003690200.1	.....	347
NTDB id 1185 GTF74 RS11940 WP 000350195.1	.....	345
NTDB id 1176 A1552VC RS01160 WP 000350195.1	.....	345
NTDB id 1283 ACE17W RS02630 WP 010947729.1	.....	344
NTDB id 1259 GC085 RS10305 WP 010947729.1	.....	344
NTDB id 1202 PSJM300 01600 AFN76400.1	.....	344
NTDB id 1194 PAKAF RS01995 WP 003084552.1	.....	344
NTDB id 1020 ACIAD RS04210 WP 011182164.1	.....	344
NTDB id 335727 EQ841 RS14590 WP 000355489.1	.....	345
NTDB id 1060 ABD1 RS04380 WP 000355489.1	.....	345
NTDB id 1040 HON27 RS13360 WP 000355489.1	.....	345
NTDB id 1081 FDQ49 RS05335 WP 006581387.1	.....	345
consensus		

- ☒ non conserved
- ☒ similar
- ☒ ≥ 50% conserved