```
logo
NTDB id 1073 ABD1 RS00865 WP 015451369.1     MLTQLSSHHYHTLKVWYLVQHSLVSFKKIIDYFGNCEKATQPDGLAKWSSLGLHANHLKRVNEFQTTQG.QAQFE.QLVQ   78
NTDB id 1094 KZH42 RS01320 WP 002224767.1    ...MTEDERFAWLQLAFTPYIGAESFLLLMRRFGSAQNALS.APAEQVAALIRHKQALEAWRNAEKRALARQAAEAALEW   76
NTDB id 1089 NMB RS00600 WP 002224767.1      ...MTEDERFAWLQLAFTPYIGAESFLLLMRRFGSAQNALS.APAEQVAALIRHKQALEAWRNAEKRALARQAAEAALEW   76
NTDB id 1388 A4U84 RS04945 WP 062924099.1    .....MTHLTKLLALLQVPQLGAQRIGRLLSEVDFGEF.CQ.YDKTALKQMGWNERQIQRWFNPE.....HKWIDQALQW   68
NTDB id 1361 HI 0985 AAC22646.1              ....MNDITYTLLRLMQVPKLGGVGIDKILSNITLNEL.LN.YDDVAFRQMGWGAIQIRRWFKPE.....AKFIEPALVW   69
NTDB id 1250 GC085 RS13065 WP 027219989.1    .....MNNLQPLLALNRMKRIGPRTVLKLQKRWPDLNL.MF.....QLSSVDLEEAGLPSWLAQTIKNFDPDFIKTDLNW   69
NTDB id 1152 A1552VC RS00200 WP 000654772.1  ...MKDQDLAAWLALCFTPKLGSKTISHLLATRLPAQL.QS.FTPKQWLACGLKPEQLVFLTTQA.....AKQAEQCLQW   70
NTDB id 1254501 CTT30 RS00275 WP 252035672.1 ...MTKEELTAWLSLYFTPRIGPKTFQRLVAVDSPINI.ID.SSPETLRRLGFSDLQLNYLQHRA.....AEDIEACFEW   70
NTDB id 1399 DSB67 RS15600 WP 010645755.1    MTPQNDIDLAAWLKLSCLPGIGGVKMNKLLSKDTPSNI.VQ.YSTEQLQLLGLTAKQLQAWS.QV.....DKEVDACLTW   72
consensus                                          ** **! * *** *** ** ***      ** *      **  **    **  *            **  * *

logo
NTDB id 1073 ABD1 RS00865 WP 015451369.1     QVRQHTDFILTPDDSGYPTQLLPYTDHPPIIFGKGQAQALLQPQIAIVGSRKPSPHGRQVAYDFAYYLSEKGFFISSGLA  158
NTDB id 1094 KZH42 RS01320 WP 002224767.1    EMR.DGCRLMLLQDEDFPEMLTQGLTAPPVLFLRGNVQLLHKPSAAIVGSRHATPQAMRIAKDFGKSLGGKGIPVVSGMA  155
NTDB id 1089 NMB RS00600 WP 002224767.1      EMR.DGCRLMLLQDEDFPEMLTQGLTAPPVLFLRGNVQLLHKPSAAIVGSRHATPQAMRIAKDFGKSLGGKGIPVVSGMA  155
NTDB id 1388 A4U84 RS04945 WP 062924099.1    AEQ.DQQQILTLFDEDYPFLLKQISTAPPVLFVRGNVESLSLPQIAIVGSRDYSHYGEHWAGHFSAELVKHQLAVTSGLA  147
NTDB id 1361 HI 0985 AAC22646.1              SQK.EGNHLVNYFSPFYPFLLKQTASFPPLLFVKGNLTALSQRQMAMVGSRYCTTYGEYWAKHFATELSLAGFTITSGLA  148
NTDB id 1250 GC085 RS13065 WP 027219989.1    LSSSENHHILTWDSPYYPALLKEIADPPFILYAKGELSALTQPSLAIVGSRNASVTGNENARAFSREISRHGVSIVSGLA  149
NTDB id 1152 A1552VC RS00200 WP 000654772.1  RSAANNRYIVTPHCPLYPRLLKEINSSPPVLFIEGIWEAVHDPAVAIVGSRNASVDGRQIARQFATELAQSGLVVTSGLA  150
NTDB id 1254501 CTT30 RS00275 WP 252035672.1 QAASSVRTILPLSDHGYPALLKQADAAPATLFVEGRLESLSQPQMAIVGSRNASIDGLNTARSFATQLVNQDMVVTSGLA  150
NTDB id 1399 DSB67 RS15600 WP 010645755.1    VAASSHHHILTLADALYPPLLKQTVAPPPLLFVKGEASCLPQPQIAMVGSRNASVDGLQHTRTFASDLVQHDLIVTSGLA  152
consensus                                        *   **** *  *! *!**  * !******!**  * ****!*!!!! **  *   ** !* **   ** **!!*!

logo
NTDB id 1073 ABD1 RS00865 WP 015451369.1     YGIDEAAHQGAS.AHQRTIAVTGTGLDTTYPAQNKKLAEYILAQNGAITEFLPGTPPLQQHFPRRNRIVSGLSLGVLVV  237
NTDB id 1094 KZH42 RS01320 WP 002224767.1    SGIDTAAHQGALQAEGGTIAVWGTGIDRIYPPVNKNLAYEIAE.KGLIVSEFPIGTRPYAGNFPRRNRLIAALSQVTLVV  234
NTDB id 1089 NMB RS00600 WP 002224767.1      SGIDTAAHQGALQAEGGTIAVWGTGIDRIYPPVNKNLAYEIAE.KGLIVSEFPIGTRPYAGNFPRRNRLIAALSQVTLVV  234
NTDB id 1388 A4U84 RS04945 WP 062924099.1    IGIDGFCHQRAANENGITIAVLGSGLDQVYPARHKKLAEQIVETSGALVSEFFPSQPPIAENFPRRNRIISGLSLGTLVI  227
NTDB id 1361 HI 0985 AAC22646.1              LGIDGHCHQAVVNIQGQTIAVLGSGLEQIYPSKHQRLSAQIIENNGALVSEFLPNQAPIAANFPRRNRIISGLSVGTLVV  228
NTDB id 1250 GC085 RS13065 WP 027219989.1    LGIDAHAHLGCLEGGGKTIAVLGTGIDCIYPRRHLKLAEQITE.NGLLLSEFPLKSPPIAGHFPLRNRIISGLSLCILVI  228
NTDB id 1152 A1552VC RS00200 WP 000654772.1  LGIDGYAHDGALQAQGQTVAVLGSGLAQVYPKQHQGLAERIIA.QGALVSEFAPHTPPKADHFPRRNRIISGLSLGVVVV  229
NTDB id 1254501 CTT30 RS00275 WP 252035672.1 LGVDGYAHDGALNGNGQTIAVLGCGLNSVYPARHKKLAQRIVQ.QGALVSEFHPNVKPKADNFPRRNRIISGLSLGVLVI  229
NTDB id 1399 DSB67 RS15600 WP 010645755.1    LGIDGHAHDGALLAGGKTIAVLGSGLEQVYPARHRGLAQRVAE.NGALVSEFRPDAKPRAENFPRRNRIISGLSLGVLVV  231
consensus                                    *!*!* *!****** * !*!!*!*!** *!! ****!*  *** *!****!! * * ! * *!!*!!!****!!****!*

logo
NTDB id 1073 ABD1 RS00865 WP 015451369.1     EATLKSGSLITANKAAEQGKTVFAIPGHIYSEFHQGCHQLIREGAILIDHPEQIIEDLALPTQWQSQQQNQTE.......  310
NTDB id 1094 KZH42 RS01320 WP 002224767.1    EAALESGSLITARLAAEMGREVMAVPGSIDNPHSKGCHKLIKDGAKLVECLDDILNECPGLLQNTGASS...YSINKGIP  311
NTDB id 1089 NMB RS00600 WP 002224767.1      EAALESGSLITARLAAEMGREVMAVPGSIDNPHSKGCHKLIKDGAKLVECLDDILNECPGLLQNTGASS...YSINKGIP  311
NTDB id 1388 A4U84 RS04945 WP 062924099.1    EATVNSGSLITARYALEQGREVFALPNSVQNPYSEGCHKLIKEGALLVENVEDILEAIAWQRQSVHIQPSL.FDT.KP..  303
NTDB id 1361 HI 0985 AAC22646.1              EATEKSGSLITARYALEQNREVFAVPGNIQNKSSQGCHRLIKQGAMLVENAKDILETLYQHS..IHSQTEIDFDQ.IA..  303
NTDB id 1250 GC085 RS13065 WP 027219989.1    EAAIKSGSLITARMALEQNRDVLAIPGSIHNPLARGCHYLLQQGAKLVTSVADVLDELKIEHHQ.........FT.....  294
NTDB id 1152 A1552VC RS00200 WP 000654772.1  EAAEKSGSLITARYAAEQGREVFVVPGSIFNAASQGSNQLIRQGACLVQSVQQIHQELKNALTW.........SL.....  295
NTDB id 1254501 CTT30 RS00275 WP 252035672.1 EAAEKSGSLITARYAMEQGREVFAIPGSIHHPHARGCNLLIKQGACLVQQVSDITDEIDSLIRW.........SD.....  295
NTDB id 1399 DSB67 RS15600 WP 010645755.1    EAAEKSGSLITARYALEQGREVFALPASINAPNASGGNQLIQNGACLVQNTQEVLNEIQSLLDW.........SI.....  297
consensus                                    !!**!!!!!!!**!*!****!***!*** ** * !** !***!! !** * ******    *           *
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1073 ABD1 RS00865 WP 015451369.1     ....................EANTNTPEIREHLIDLYQSLDWVGQNIDQLVVHHNIPVSELTSSLMELELLGLCMQQSGLY   371
NTDB id 1094 KZH42 RS01320 WP 002224767.1    EKRITAVQTASDQLSLPEGKMPSEKTENRPVGGSILDRMGFDPVHPDVLAGQLAMPAADLYAALLELELDGSVAAMPGGR   391
NTDB id 1089 NMB RS00600 WP 002224767.1      EKRITAVQTASDQLSLPEGKMPSEKTENRPVGGSILDRMGFDPVHPDVLAGQLAMPAADLYAALLELELDGSVAAMPGGR   391
NTDB id 1388 A4U84 RS04945 WP 062924099.1    ...........KQAVKSEPKFAKNLPELTACQQQLFEQISLEPISVDDLAKAIDMAVETALIELLNLELLGVVKQVRGGY   372
NTDB id 1361 HI 0985 AAC22646.1              .........VPNYTPPPDPR...RL.VEAPSHPKLYSRIGYTPVSIDDLAEEFNLSVDVLLVQLLDLELQDLIISENGLY   370
NTDB id 1250 GC085 RS13065 WP 027219989.1    ..........SNK.....PIFSLASGKE.....NLVKFIGFETTTIDQIIDRSGYGMEQVTSGLAELELKGAVIAVPGGY   354
NTDB id 1152 A1552VC RS00200 WP 000654772.1 ..........SEQVPYQATLFSAVQSDEELPFPELLANVGIEATPIDILASRTQIPVQDIMMQLLELELLGHVVAVPGGY   365
NTDB id 254501 CTT30 RS00275 WP 252035672.1 ..........INKPPVQNDLFEQIDCKEELPFPQLLANVGSKATPVDILASRTNIPVHEVMMQLLELELSGHVVAVSGGY   365
NTDB id 1399 DSB67 RS15600 WP 010645755.1    ..........NQS....LDLFSAPIDEEELPFPQLLANVGNEATPVDILASRTNIPVQEVMMQLLELELSGHVVAVSGGY   363
consensus                                                          *      **       **  ****   *!***  ***** **** !**!!! * **** !**
```

```
logo

NTDB id 1073 ABD1 RS00865 WP 015451369.1     LRCRS..   376
NTDB id 1094 KZH42 RS01320 WP 002224767.1    YQRIRT.   397
NTDB id 1089 NMB RS00600 WP 002224767.1      YQRIRT.   397
NTDB id 1388 A4U84 RS04945 WP 062924099.1    VIT....   375
NTDB id 1361 HI 0985 AAC22646.1              KRV....   373
NTDB id 1250 GC085 RS13065 WP 027219989.1    IRCEYER   361
NTDB id 1152 A1552VC RS00200 WP 000654772.1  IRKGRG.   371
NTDB id 254501 CTT30 RS00275 WP 252035672.1  IRKGRG.   371
NTDB id 1399 DSB67 RS15600 WP 010645755.1    IRKGRG.   369
consensus                                    *** *
```

X non conserved

X similar

X $\geq$ 50% conserved