logo

```
NTDB id 1257 GCO85 RS04855 WP 163621000.1   MRKIIAILIL..ISASLSLAYSKDNSLISVKVLPLPENRVRIDFQFSKPLKQLPASFITQKPPRLVLDFISTDMQIPSDQ   78
NTDB id 1284 ACE17W RS12370 WP 010946666.1  MRKIIAILIL..ISASLSMAYSKDNSLISVKVLPLPENRVRIDFQFSKPLKQLPASFITQKPPRLVLDFISTDMQIPSDQ   78
NTDB id 1009 ACIAD RS15175 WP 004923730.1   MKQIIRQFSIGTVAYAIMQVASAQVAITNVVPMNIPGQGTEIRVMFNGLPP.QPQAYQLEQPARLILDFDKAGQKLAK..   77
NTDB id 1052 ABD1 RS15850 WP 001017033.1    MNHVFRQFSMGAVAIAIMQAASAQVSMTNIVPMQIAGQGTEIRVMFNGLPP.QPQAYQLENPSRLILDFDKAQQGLKQ..   77
NTDB id 1039 HON27 RS01460 WP 031993779.1   MNHVFRQFSMGAVAIAIMQAASAQVSMTNIVPMQIAGQGTEIRVMFNGLPP.QPQAYQLENPSRLILDFDKAQQGLKQ..   77
NTDB id 1165819 AB3226 RS16790 WP 367373861.1 MNRIFSTFGISLWIAF.LSPMVVAANLKALDVAALPGDRVELKLSFDGPPP.QPHGYTTEQPARIALDLPGVTSQLAS..   76
NTDB id 1193 PAKAF RS26665 WP 003161249.1   MNSGLSRLGIALLAAM.FAPALLAADLEKLDVAALPGDRVELKLQFDEPVA.APRGYTIEQPARIALDLPGVQNKLGT..   76
consensus                                   !* **  * ** *** ** ***   **  * ** ********** ! **** *! ** ***! !**!!*    * * *
```

logo

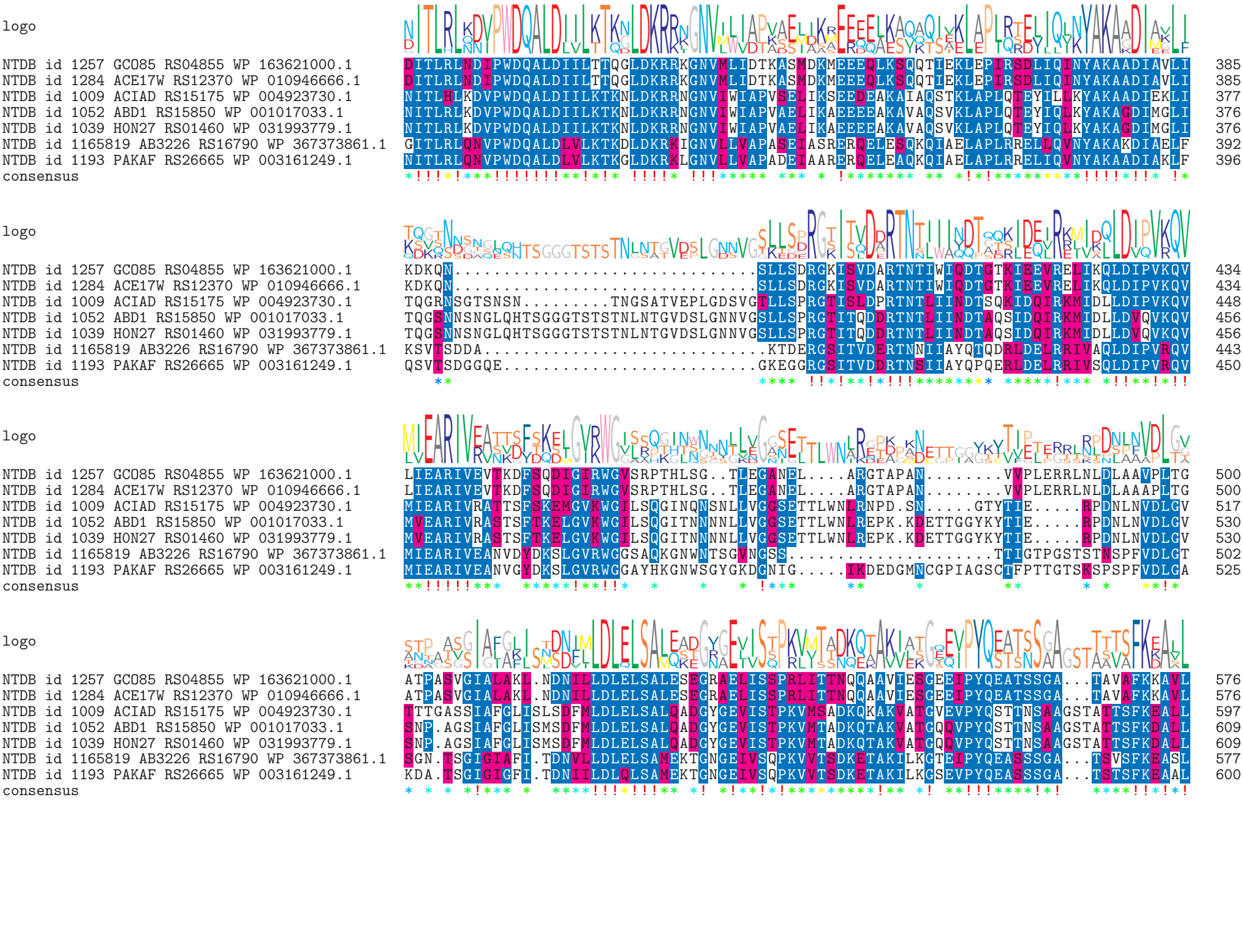
```
NTDB id 1257 GCO85 RS04855 WP 163621000.1   KTKTIQLGSLHSYNIVAVGDRVRAILELDRSVSYSGSTAGSVYSLVLNGKSNDLF.ENSKEV.............FITNQV   145
NTDB id 1284 ACE17W RS12370 WP 010946666.1  KTKTIQLGSLHSYNIVAVGDRVRAILELDRSVSYSGSTAGSIYSLVLNGKSNDLF.ENSKEV.............FITNQV   145
NTDB id 1009 ACIAD RS15175 WP 004923730.1   SLIPVTTNEASSIDVSSDDKRARVVVNLKDAGAFTTRVEGNVFILKINNIQSTA.............TPVATSAPA.....   140
NTDB id 1052 ABD1 RS15850 WP 001017033.1    SKISVATNEASSVDVTSDDQRSRLTVNLKDAGAFTTRVEGNTFILKINSAQTSN.............KPLPVVS.A.....   139
NTDB id 1039 HON27 RS01460 WP 031993779.1   SKISVATNEASSVDVTSDDQRSRLTVNLKDTGAFTTRVEGNTFILKINSAQTSN.............KPLPVVS.A.....   139
NTDB id 1165819 AB3226 RS16790 WP 367373861.1 KNRDLGGGNARSATVVEAKDRTRLIISLTQLTPYNARVEGNNLFVVVGQGAGNKA...PKPTTNAPR.AATATPAPARAN   152
NTDB id 1193 PAKAF RS26665 WP 003161249.1   KNRELSVGNTRSVTVVEAKDRTRLIINLTTLSSYTTRVEGNNLFVVVGNSPAGASVASTAPVKASPAPASYAQPIKPKPY   156
consensus                                   * ***  * * !* **   *!*!****!     ******!* * ****          *     *      *
```

logo

```
NTDB id 1257 GCO85 RS04855 WP 163621000.1   VNAKHEIKRIDFRGIEKQGGRVLIDVSDTGIPIDVTQVGKEIVVNFLNTKIPLNLMKRYDVSDFHSPVQIITMQQEGKKV   225
NTDB id 1284 ACE17W RS12370 WP 010946666.1  VNAKHEIKRIDFRGIEKQGGRVLIDVSDTGIPIDVTQVGKEIVVNFLNTKIPLNLMKRYDVSDFHSPVQIITMQQEGKKV   225
NTDB id 1009 ACIAD RS15175 WP 004923730.1   ..PQQGIGNIGFQRGAQGEGLVVIDLQGTNTPVDVQQQGSKVVVRFPGIKIPTHLARRLNTTDFATPVASIDSYNDGSNG   218
NTDB id 1052 ABD1 RS15850 WP 001017033.1    ..QPQGVSNIGFQRGSQGEGLVVVDLLGSNTPVDVQQQGSKVVIRTIGTKIPTHLARRLNVNDFATPVSSIDAYNDKGVG   217
NTDB id 1039 HON27 RS01460 WP 031993779.1   ..QPQGVSNIGFQRGSQGEGLVVVDLLGSNTPVDVQQQGSKVVIRTIGTKIPTHLARRLNVNDFATPVSSIDAYNDKGVG   217
NTDB id 1165819 AB3226 RS16790 WP 367373861.1 APVGKAIRGVDFQRGTQGEGNVIIDLSDPSIAPDIQERDGKIIVGFTKTQLPERLRVRLDVKDFATPVQFVNASATGDRA   232
NTDB id 1193 PAKAF RS26665 WP 003161249.1   VPAGRAIRNIDFQRGEKGEGNVVIDLSDPTLSPDIQEQGGKIRLDFAKTQLPDALRVRLDVKDFATPVQFVNASAQSDRT   236
consensus                                      ******!***  ***!  !**!****  ***!*****  ****  **  ***!   !  *!***  !!**!!*  * *  ***  **
```

logo

```
NTDB id 1257 GCO85 RS04855 WP 163621000.1   RMTILSKGDYGHFVYQVNKQFMVDVFPLTAEEIRQAKLKKQVFTGKRISLNFQNISIRAVLQLLADFTGINMVVSDKVQG   305
NTDB id 1284 ACE17W RS12370 WP 010946666.1  RMTILSKGDYGHFVYQVNKQFMVDVFPLTAEEIRQAKLKKQVFTGKRISLNFQNISIRAVLQLLADFTGINMVVSDKVQG   305
NTDB id 1009 ACIAD RS15175 WP 004923730.1   VISIQSTGSYEYMAYQAENKLTISLKRPQDN.VRLNSKNNQNYTGKKISLDFQDIEVRRVLQLLADFTNINMVTADSVQG   297
NTDB id 1052 ABD1 RS15850 WP 001017033.1    VITIQSSGSYEYMAYQAENKLTISLKRPQDK.NVTSLYKTPNYSGNKLSLDFQDIEVRRVLQLLADFTGINMVAADSVQG   296
NTDB id 1039 HON27 RS01460 WP 031993779.1   VITIQSSGSYEYMAYQAENKLTISLKRPQDK.NVTSLYKTPNYSGNKLSLDFQDIEVRRVLQLLADFTGINMVAADSVQG   296
NTDB id 1165819 AB3226 RS16790 WP 367373861.1 IISIEPSGAFDYSTYQTDNKLTVSIRAMTVDDLHKRNTERFAYTGEKLSLNFQDIDVRSVLQLIADFTNLNLVASDTVQG   312
NTDB id 1193 PAKAF RS26665 WP 003161249.1   SITIEPSGLYDYLVYQTDNRLTVSIKPMTTEDAERRKKDNFAYTGEKLSLNFQDIDVRSVLQLIADFTDLNLVASDTVQG   316
consensus                                   ***!  **!  ****  !!  *********  **  ***      *    **!  **!!*!!*!**!  !!!!*!!!!**!*!**!*!!!
```


logo
NTDB id 1257 GCO85 RS04855 WP 163621000.1 DITLRLNDIPWDQALDIILTTQGLDKRRKGNVMLIDTKASMDKMEEEQLKSQQTIEKLEPIRSDLIQINYAKAADIAVLI 385
NTDB id 1284 ACE17W RS12370 WP 010946666.1 DITLRLNDIPWDQALDIILTTQGLDKRRKGNVMLIDTKASMDKMEEEQLKSQQTIEKLEPIRSDLIQINYAKAADIAVLI 385
NTDB id 1009 ACIAD RS15175 WP 004923730.1 NITLHLKDVPWDQALDIILKTKNLDKRRNGNVIWIAPVSELIKSEEDEAKAIAQSTKLAPLQTEYILLKYAKAADIEKLI 377
NTDB id 1052 ABD1 RS15850 WP 001017033.1 NITLRLKDVPWDQALDIILKTKNLDKRRNGNVIWIAPVAELIKAEEEEAKAVAQSVKLAPLQTEYIQLKYAKAGDIMGLI 376
NTDB id 1039 H0N27 RS01460 WP 031993779.1 NITLRLKDVPWDQALDIILKTKNLDKRRNGNVIWIAPVAELIKAEEEEAKAVAQSVKLAPLQTEYIQLKYAKAGDIMGLI 376
NTDB id 1165819 AB3226 RS16790 WP 367373861.1 GITLRLQNVPWDQALDLVLKTKDLDKRKIGNVLLVAPASEIASRERQELESQKQIAELAPLRRELLQVNYAKAKDIAELF 392
NTDB id 1193 PAKAF RS26665 WP 003161249.1 NITLRLQNVPWDQALDLVLKTKGLDKRKLGNVLLVAPADEIAARERQELEAQKQIAELAPLRRELIQVNYAKAADIAKLF 396
consensus
logo
NTDB id 1257 GCO85 RS04855 WP 163621000.1 KDKQN.....SLLSDRGKISVDARTNTIWIQDTGTKIEEVRELIKQLDIPVKQV 434
NTDB id 1284 ACE17W RS12370 WP 010946666.1 KDKQN.....SLLSDRGKISVDARTNTIWIQDTGTKIEEVRELIKQLDIPVKQV 434
NTDB id 1009 ACIAD RS15175 WP 004923730.1 TQGRNSGTSNSN.....TNGSATVEPLGDSVGTLLSPRGTISLDPRTNTLIINDTSQKIDQIRKMIDLLDIPVKQV 448
NTDB id 1052 ABD1 RS15850 WP 001017033.1 TQGSNNSNGLQHTSGGGTSTSTNLNTGVDSLGNNVGSLLSPRGTITQDDRTNTLIINDTAQSIDQIRKMIDLLDVQVKQV 456
NTDB id 1039 H0N27 RS01460 WP 031993779.1 TQGSNNSNGLQHTSGGGTSTSTNLNTGVDSLGNNVGSLLSPRGTITQDDRTNTLIINDTAQSIDQIRKMIDLLDVQVKQV 456
NTDB id 1165819 AB3226 RS16790 WP 367373861.1 KSVTSDDA.....KTDERGSITVDERTNNIIAYQTQDRLDELRRIVAQLDIPVRQV 443
NTDB id 1193 PAKAF RS26665 WP 003161249.1 QSVTSDGGQE.....GKEGGRGSITVDDRTNSIIAYQPQERLDELRRIVSQLDIPVRQV 450
consensus
logo
NTDB id 1257 GCO85 RS04855 WP 163621000.1 LIEARIVEVTKDFSQDIGIRWGVSRPTHLSG..TLEGANEL....ARGTAPAN.....VVPLERRLNLDLAAVPLTG 500
NTDB id 1284 ACE17W RS12370 WP 010946666.1 LIEARIVEVTKDFSQDIGIRWGVSRPTHLSG..TLEGANEL....ARGTAPAN.....VVPLERRLNLDLAAAPLTG 500
NTDB id 1009 ACIAD RS15175 WP 004923730.1 MIEARIVRATTSFSKEMGVKWGILSQGINQNSNLLVGGSETTLWNLRNPD.SN.....GTYTIE.....RPDNLNVDLGV 517
NTDB id 1052 ABD1 RS15850 WP 001017033.1 MVEARIVRASTSFTKELGVKWGILSQGITNNNNLLVGGSETTLWNLREPK.KDETTGGYKYTIE.....RPDNLNVDLGV 530
NTDB id 1039 H0N27 RS01460 WP 031993779.1 MVEARIVRASTSFTKELGVKWGILSQGITNNNNLLVGGSETTLWNLREPK.KDETTGGYKYTIE.....RPDNLNVDLGV 530
NTDB id 1165819 AB3226 RS16790 WP 367373861.1 MIEARIVEANVDYDKSLGVRWGGSAQKGNWNTSGVNGSS.....TTIGTPGSTSTNSPFVDLGT 502
NTDB id 1193 PAKAF RS26665 WP 003161249.1 MIEARIVEANVGYDKSLGVRWGGAYHKGNWSGYGKDGNIG.....IKDEDGMNCGPIAGSCTFPTTGTSKSPSPFVDLGA 525
consensus
logo
NTDB id 1257 GCO85 RS04855 WP 163621000.1 ATPASVGIALAKL.NDNILLDLELSALESEGRAELISSPRLITTNQQAAVIESGEEIPYQEATSSGA...TAVAFKKAVL 576
NTDB id 1284 ACE17W RS12370 WP 010946666.1 ATPASVGIALAKL.NDNILLDLELSALESEGRAELISSPRLITTNQQAAVIESGEEIPYQEATSSGA...TAVAFKKAVL 576
NTDB id 1009 ACIAD RS15175 WP 004923730.1 TTTGASSIAFGLISLSDFMLDLELSALQADGYGEVISTPKVMSADKQKAKVATGVEVPYQSTTNSAAGSTATTSFKEALL 597
NTDB id 1052 ABD1 RS15850 WP 001017033.1 SNP.AGSIAFGLISMSDFMLDLELSALQADGYGEVISTPKVMTADKQTAKVATGQQVPYQSTTNSAAGSTATTSFKDALL 609
NTDB id 1039 H0N27 RS01460 WP 031993779.1 SNP.AGSIAFGLISMSDFMLDLELSALQADGYGEVISTPKVMTADKQTAKVATGQQVPYQSTTNSAAGSTATTSFKDALL 609
NTDB id 1165819 AB3226 RS16790 WP 367373861.1 SGN.TSGIGIAFI.TDNVLLDLELSAMEKTGNGEIVSQPKVVTSDKETAKILKGTEIPYQEASSSGA...TSVSFKEASL 577
NTDB id 1193 PAKAF RS26665 WP 003161249.1 KDA.TSGIGIGFI.TDNILLDLQLSAMEKTGNGEIVSQPKVVTSDKETAKILKGSEVPYQEASSSGA...TSTSFKEAAL 600
consensus

logo

```
NTDB id 1257 GCO85 RS04855 WP 163621000.1      SLKVTPQITPDGKILMDLQINQDTPSPQ.TFLGVPAIITKEIQTNVLVNNGQTIVLGGIYKQDKNKVINRIPFFGELPVV   655
NTDB id 1284 ACE17W RS12370 WP 010946666.1     SLKVTPQITPDGKILMDLQINQDTPSPQ.TFLGVPAIITKEIQTNVLVNNGQTIVLGGIYKQDKNKVINRIPFFGELPVV   655
NTDB id 1009 ACIAD RS15175 WP 004923730.1      SLEVTPNITPDGKILMELNIANDSINSY.AQNGEAILNKNTINTNVLVNNGETVVLGGVFEQTTNNAVTKVPFLGDLPYV   676
NTDB id 1052 ABD1 RS15850 WP 001017033.1       SLNVTPSITPDGKIQMKLDISKDSVAGA.APNGELILNKNNINTNVLVDNGETVILGGVFEQTTMNSQTKVPFFGDIPVV   688
NTDB id 1039 H0N27 RS01460 WP 031993779.1      SLNVTPSITPDGKIQMKLDISKDSVAGA.APNGELILNKNNINTNVLVDNGETVILGGVFEQTTMNSQTKVPFFGDIPVV   688
NTDB id 1165819 AB3226 RS16790 WP 367373861.1  SLEVTPQITPDNRIIMEVKVTKDEPDYLNKVQDVPPIKKNEVNAKVLVNDGETIVIGGVFSNTQSKVVDKVPFLGDVPYL   657
NTDB id 1193 PAKAF RS26665 WP 003161249.1      SLEVTPQITPDNRIIVEVKVTKDAPDYQNMLNGVPPINKNEVNAKILVNDGETIVIGGVFSNEQSKSVEKVPFLGELPYL   680
consensus                                      !! !!!*!!!!**!**** ***!**      **** **********!!**!*!***!!** **  * * **!!*!**!**
```

logo

```
NTDB id 1257 GCO85 RS04855 WP 163621000.1      GILFSNRQITLKNEELLIFITPRIITNALSITTIEGREKDVYK   698
NTDB id 1284 ACE17W RS12370 WP 010946666.1     GILFSNRQITLKNEELLIFITPRIITNALSITTIEGREKDVYK   698
NTDB id 1009 ACIAD RS15175 WP 004923730.1      GRLFKKTAKSEAKNELLIFVTPRIVNDTIVGNH.........   709
NTDB id 1052 ABD1 RS15850 WP 001017033.1       GRLFRKDVKSDDKQELLIFVTPRIVNDTLARNH.........   721
NTDB id 1039 H0N27 RS01460 WP 031993779.1      GRLFRKDVKSDDKQELLIFVTPRIVNDTLARNH.........   721
NTDB id 1165819 AB3226 RS16790 WP 367373861.1  GRLFRRDVVSEKKSELLVFLTPRIMNNQAIAVSH.........   691
NTDB id 1193 PAKAF RS26665 WP 003161249.1      GRLFRRDTVTDRKNELLVFLTPRIMNNQAIAIGR.........   714
consensus                                      !*!!*** ******!!!*!*!!!!*** *
```

X non conserved

X similar

X ≥ 50% conserved