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NTDB id 194 SPR RS08825 WP 001085462.1       .M..AKKPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGERAE.QKVQVMSSGSLALDIALGSGGYPKGRIIE   76
NTDB id 159 SP RS09750 WP 001085462.1        .M..AKKPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGERAE.QKVQVMSSGSLALDIALGSGGYPKGRIIE   76
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NTDB id 625 LCA RS02525 WP 011374196.1       ................MAKDERQAALDAALKKIEKNFGKGSIMRMGEKVD.TQVSTVSSGSLALDEALGVGGYPRGRIVE   63
NTDB id 1313 DR RS12030 WP 010888966.1       ....MSKDATKEISAPTDAKERSKAIETAMSQIEKAFGKGSIMKLGAESK.LDVQVVSTGSLSLDLALGVGGIPRGRITE   75
NTDB id 1245 Cj1673c YP 002345041.1          ..................MDDNKRKSLDAALKSLDKTFGKGTILRLGDKEV.EQIDSIGTGSVGLDLALGIGGVPKGRIIE   62
NTDB id 1211 C694 RS00795 WP 000963128.1     ...............MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDKQV.EKIDSISTGSLGLDLALGIGGVPKGRIIE   64
NTDB id 1214 NCTC11637 00359 SQJ03206.1      ...............MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDKQV.EKIDAISTGSLGLDLALGIGGVPKGRIIE   64
NTDB id 1334 RA0C RS04870 WP 004918236.1     .........MAKTETTSPNDDKKKALAAVLEKLDKTYGKGTVMKLGDGTVDHNIEVIPSGSLGLDLALGVGGYPKGRIVE   71
NTDB id 1130 NGFG RS03960 WP 003688695.1     ..................MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGRIVE   63
NTDB id 1124 NGFG RS03960 WP 003688695.1     ..................MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGRIVE   63
NTDB id 1123 OK783 RS03845 WP 003688695.1    ..................MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGRIVE   63
NTDB id 230166 CBP33 RS17970 WP 086914255.1 ....MDVAVKGTNPALPVNTEKAKALAAALAQIEKQFGKGTIMRLGEGEVIEDIQVVSTGSLGLDIALGVGGLPRGRVVE   76
NTDB id 1427 RS RS02760 WP 011000510.1       ........MEDGKKAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDAEV.EPVQVVSTGSLGLDVALGVGGLPRGRVVE   71
NTDB id 1389 A4U84 RS07560 WP 021112712.1    MAENKKSSKNNTVVKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQTEQ.LDIESVSTGSLGLDLALGIGGLPMGRIVE   79
NTDB id 1165 A1552VC RS01565 WP 000344154.1 ..................MDENKQKALAAALGQIEKQFGKGSIMRLGDNRA.MDVETISTGSLSLDIALGAGGLPMGRIVE   62
NTDB id 1142 GTF74 RS11550 WP 000344154.1    ..................MDENKQKALAAALGQIEKQFGKGSIMRLGDNRA.MDVETISTGSLSLDIALGAGGLPMGRIVE   62
NTDB id 1022 ACIAD RS06390 WP 004925639.1    ..................MDDNKSKALQAALSQIEKQFGKNTVMRLGDNTV.QAVEAVSTGSLTLDIALGIGGLPKGRIVE   62
NTDB id 1074 ABD1 RS10195 WP 000344167.1     ..................MDENKSKALQAALSQIEKQFGKNTVMRLGDNTV.QAVEAVSTGSLTLDIALGIGGLPKGRIIE   62
NTDB id 1205 PSJM300 05545 AFN77183.1        ..................MDENKKRALAAALGQIEKQFGKGAVMRMGDHDR.QAIPSISTGSLGLDIALGIGGLPKGRIVE   62
consensus                                                     ** ***  ** ***! *!!********      *  ***!!**!!*!!! !! !*!!**!
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NTDB id 600 KW2 RS01765 WP 011675413.1      IYGPESSGKTTVALHAVAAVQKEGGIAAFIDAENALDPEYAKALGVNIDELLLSQPDYGEQGLQIAEKLITSGAVDLVVI   157
NTDB id 269 KZH43 RS08665 WP 001085462.1    IYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVVV   156
NTDB id 228 SPD RS09265 WP 001085462.1      IYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVVV   156
NTDB id 194 SPR RS08825 WP 001085462.1      IYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVVV   156
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NTDB id 499 SM12261 RS08315 WP 078228268.1 IYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVVV   156
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NTDB id 453 Spy49 1753c ACI62003.1          IYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLAQPDSGEQGLEIAGKLIDSGAVDLVVV   156
NTDB id 408 SMU RS09530 WP 002262392.1     IYGPESSGKTTVALHAVAQAQKDGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVVV   156
NTDB id 115 BSU 16940 NP 389576.2           VYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIEELLLSQPDTGEQALEIAEALVRSGAVDIVVV   141
NTDB id 625 LCA RS02525 WP 011374196.1      IYGPESSGKTTVALHAVAEVQKQGGTAAYIDAENAMDPKYATALGVNIDDLLLSQPDTGEQGLEIADALVSSGAVDILVV   143
NTDB id 1313 DR RS12030 WP 010888966.1      IYGPESGGKTTLALAIVAQAQKAGGTCAFIDAEHALDPVYARALGVNTDELLVSQPDNGEQALEIMELLVRSGAIDVVVV   155
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NTDB id 1211 C694 RS00795 WP 000963128.1    IYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDLVVV   144
NTDB id 1214 NCTC11637 00359 SQJ03206.1     IYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDLVVV   144
NTDB id 1334 RAOC RS04870 WP 004918236.1    IYGPESSGKTTLTLHAIAEAQKVGGTAAFIDAEHAFDMHYAEKLGINLEELIVSQPDNGEQALEIADSLIRSGGVDIVVV   151
NTDB id 1130 NGFG RS03960 WP 003688695.1    IFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDMVVV   143
NTDB id 1124 NGFG RS03960 WP 003688695.1    IFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDMVVV   143
NTDB id 1123 OK783 RS03845 WP 003688695.1   IFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDMVVV   143
NTDB id 230166 CBP33 RS17970 WP 086914255.1 IYGPESSGKTTLTLQVIAEMQKQGGTCAFVDAEHALDVQYAQKLGVQLSDLLISQPDTGEQALEIVDSLVRSGAVDLIVI   156
NTDB id 1427 RS RS02760 WP 011000510.1      IYGPESSGKTTLTLQVVAEMQKLGGTCAFIDAEHALDVTYADKLGVKVPDLLISQPDTGEQALEIADALVRSGSVDLIVI   151
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NTDB id 1165 A1552VC RS01565 WP 000344154.1 IFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLVSQPDTGEQALEICDALARSGAVDVIVV   142
NTDB id 1142 GTF74 RS11550 WP 000344154.1   IFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLVSQPDTGEQALEICDALARSGAVDVIVV   142
NTDB id 1022 ACIAD RS06390 WP 004925639.1  IYGPESSGKTTMTLQAIAQCQKAGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDHGEQALEIADMLVRSGAIDLIVV   142
NTDB id 1074 ABD1 RS10195 WP 000344167.1   IYGPESSGKTTMTLQAIAQCQKSGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDNGEQALEIADMLVRSGAIDLIVV   142
NTDB id 1205 PSJM300 05545 AFN77183.1       IYGPESSGKTTLTLSVIAAAQRMGSTCAFVDAEHALDPDYAGKLGVNVDDLLVSQPDTGEQALEITDMLVRSNAVDVIIV   142
consensus                                   **!!!!*!!!!* ! **!  !* **  !**!!!*!*!* !!  !!*****!***!!!*!!!*!*! * ***!***!****
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logo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 600 KW2 RS01765 WP 011675413.1        DSVAALVPKAEIDGEIGDSSVGLQARMMSQAMRKLAGHINKTKTTAIFINQLREKVGVM.FGSPETTPGGRALKFYASVR   236
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NTDB id 228 SPD RS09265 WP 001085462.1        DSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASVR   235
NTDB id 194 SPR RS08825 WP 001085462.1        DSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASVR   235
NTDB id 159 SP RS09750 WP 001085462.1         DSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASVR   235
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NTDB id 453 Spy49 1753c ACI62003.1            DSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASVR   235
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NTDB id 115 BSU 16940 NP 389576.2             DSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAINKSKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYSSVR   220
NTDB id 625 LCA RS02525 WP 011374196.1        DSVAALVPRAEIEGEMGDAHVGLQARLMSQALRKLSGTINKTKTIALFINQIREKVGVM.FGNPEVTPGGRALKFYSTVR   222
NTDB id 1313 DR RS12030 WP 010888966.1        DSVAALTPRAEIEGDMGDSLPGLQARLMSQALRKLTAILSKTGTAAIFINQVREKIGVM.YGNPETTTGGRALKFYASVR   234
NTDB id 1245 Cj1673c YP 002345041.1           DSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTTGGNALKFYASVR   222
NTDB id 1211 C694 RS00795 WP 000963128.1      DSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMGYGSPETTTGGNALKFYASVR   224
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NTDB id 230166 CBP33 RS17970 WP 086914255.1   DSVAALTPKAEIEGEMGDSLPGLQARLMSQALRKLTSTIKKTNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYASVR   235
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NTDB id 1389 A4U84 RS07560 WP 021112712.1     DSVAALTPKAEIEGDMGDSHMGLQARLMSQALRKLTANIKNTNCLVVFINQIRMKIGVM.FGNPETTTGGNALKFYASVR   238
NTDB id 1165 A1552VC RS01565 WP 000344154.1   DSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYASVR   221
NTDB id 1142 GTF74 RS11550 WP 000344154.1     DSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYASVR   221
NTDB id 1022 ACIAD RS06390 WP 004925639.1     DSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYASVR   221
NTDB id 1074 ABD1 RS10195 WP 000344167.1      DSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYASVR   221
NTDB id 1205 PSJM300 05545 AFN77183.1         DSVAALVPKAEIEGEMGDAHVGLQARLMSQALRKITGNIKNANCLVIFINQIRMKIGVM.FGSPETTTGGNALKFYASVR   221
consensus                                     !!!!!! !*!!!*!**!!***!!*!!**!*!*!!*** * ** ** *!!!!*! !*!*! *! !!*! !! !!!!!**!!
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logo
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NTDB id 194 SPR RS08825 WP 001085462.1      LDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYKDEK   314
NTDB id 159 SP RS09750 WP 001085462.1       LDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYKDEK   314
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NTDB id 453 Spy49 1753c ACI62003.1          LDVRGTTQIKGTG.DQKDSSIGKETKIKVVKNKVAPPFKVAEVEIMYGEGISRTGELVKIASDLDIIQKAGAWFSYNGEK   314
NTDB id 408 SMU RS09530 WP 002262392.1      LDVRGNTQIKGTG.EQKDSNIGKETKIKVVKNKVAPPFKEAFVEIIYGEGISRTGELVKIASDLGIIQKAGAWYSYNGEK   314
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NTDB id 625 LCA RS02525 WP 011374196.1      LEVRRAETIKNGT.....DMIGNRARIKVVKNKVAPPFKVAEVDIMYGQGISRTGELVDMAVEKDIINKSGSWYSYGSER   297
NTDB id 1313 DR RS12030 WP 010888966.1      LDVRKIG....QPTKVGNDAVANTVKIKTVKNKVAAPFKEVELALVYGKGFDQLSDLVGLAADMDIIKKAGSFYSYGDER   310
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NTDB id 1211 C694 RS00795 WP 000963128.1    IDIRRIA....SL.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQDKK   299
NTDB id 1214 NCTC11637 00359 SQJ03206.1     IDIRRIA....AL.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQDKK   299
NTDB id 1334 RA0C RS04870 WP 004918236.1    IDIRRSLSDTGKIKDKSGEVIGNRTKVKVVKNKVAPPFKSAEFDIMYGEGVSKVGEILDVATDLDIIQKSGSWFSYQDTK   310
NTDB id 1130 NGFG RS03960 WP 003688695.1    LDIRRTG....SI.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYNGAK   297
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NTDB id 230166 CBP33 RS17970 WP 086914255.1 LDIRRTG....TI.KKGDEAIGNETKVKVVKNKVSPPFKTAEFDILFGEGISREGEIIDMGVNAKIVEKAGAWYAYNGEK   310
NTDB id 1427 RS RS02760 WP 011000510.1      LDIRRIG....SI.KKGDEVVGNETKVKVVKNKVAPPFREAIFDILYGAGVSREGEIIDLGVEAKVVEKSGAWYSYNGER   305
NTDB id 1389 A4U84 RS07560 WP 021112712.1   LDIRRCG....VV.KDGDEIIGSETKVKVVKNKVAPPFREVQFDIMYGEGISRMNELLILAEANGFIKKSGAWFSYDGTK   313
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NTDB id 1022 ACIAD RS06390 WP 004925639.1   LDIRRIG....QV.KEGDEIIGSETKVKVVKNKMAPPFREAIFQILYGKGVNQLGELVDLAVQQNIVQKAGAWYSYQGNK   296
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NTDB id 1205 PSJM300 05545 AFN77183.1       LDIRRTG....AV.KEGDEVVGSETRVKVVKNKVAPPFRQAEFQILYGKGIYRNGEIIDLGVQQGLVEKSGAWYAYKGSK   296
consensus                                   ***!*            *  ** ****!**!!!***!!* *  ****!*!***  ****  **   *** ! !****!    *
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logo

NTDB id 600 KW2 RS01765 WP 011675413.1        IGQGAEKAKNYLKEHQDVFDEIDHKVRAAHGLLDDSEVAETEEETTASKTKAKAKKEEKAVETEEIELELED........  387
NTDB id 269 KZH43 RS08665 WP 001085462.1      IGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIEE  388
NTDB id 228 SPD RS09265 WP 001085462.1        IGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIEE  388
NTDB id 194 SPR RS08825 WP 001085462.1        IGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIEE  388
NTDB id 159 SP RS09750 WP 001085462.1         IGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIEE  388
NTDB id 499 SM12261 RS08315 WP 078228268.1    IGQGSENAKKYLADNPEIFDEIDHQVRVQFGLIDGEEIAES....KKDE....AAQVDS..VNEEVTLDLGDELEIEIEE  384
NTDB id 527 SMSK321 RS11065 WP 001085454.1    IGQGSENAKKYLADNPEVFAEIDHQVRVQFGLIDGEEAAES....KKDE....VAQVDS..VNEEVTLDLGDELEIEIEE  384
NTDB id 453 Spy49 1753c ACI62003.1            IGQGSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEEESAMAVASE.......E.......TDDLALDLDNGIEIED..  378
NTDB id 408 SMU RS09530 WP 002262392.1        IGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEKQSSKEK.......ETDEK..ADKNLVLELDDTIELED..  383
NTDB id 115 BSU 16940 NP 389576.2             LGQGRENAKQFLKENKDIMLMIQEQIREHYGLDNNGVVQQQAEETQEEL.EFE.E........................  348
NTDB id 625 LCA RS02525 WP 011374196.1        IGQGRENAKNYLADHEDVEDEVRLKVRAAYGISDVPEEDLPTTEDE.QI.NILPDDST.....EE...............  355
NTDB id 1313 DR RS12030 WP 010888966.1        IGQGKEKTIAYIAERPEMEQEIRDRVMAAIRAGNAGEAPALAPAPA..APEAAEA........................  363
NTDB id 1245 Cj1673c YP 002345041.1           LGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE.................................  343
NTDB id 1211 C694 RS00795 WP 000963128.1      LGQGRENAKALLKEDKALADEITLKIKESIGSNEEIMPLPDEPLEEME...............................  347
NTDB id 1214 NCTC11637 00359 SQJ03206.1       LGQGRENAKALLKEDKALADEITLKIKESIGSNEEIMPLPDEPLEEME...............................  347
NTDB id 1334 RA0C RS04870 WP 004918236.1      LGQGRDTVKELIKDNPELAEELEAKIREKLQAK..............................................  343
NTDB id 1130 NGFG RS03960 WP 003688695.1      IGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDE..TDG.....ERPE......E................  348
NTDB id 1124 NGFG RS03960 WP 003688695.1      IGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDE..TDG.....ERPE......E................  348
NTDB id 1123 OK783 RS03845 WP 003688695.1     IGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDE..TDG.....ERPE......E................  348
NTDB id 230166 CBP33 RS17970 WP 086914255.1   IGQGRDNAREFLRENPNLAREIENKVRESLGIALLPAALEAAPAGKPGKAEKGEKED......K................  368
NTDB id 1427 RS RS02760 WP 011000510.1        IGQGRDNCREFLRENAELAREIENKVREHLGVTPMGAVTLAEEVEED................................  352
NTDB id 1389 A4U84 RS07560 WP 021112712.1     IGQGKNNAVKWLKENPEIADKLEQEIRNTLASNPNSVLKATA.SDSNDESDVEEFSE......EEL..............  372
NTDB id 1165 A1552VC RS01565 WP 000344154.1   IGQGKANACKYLKENPEIAKTLDKKLREMLLNPENMQLIAET.SSAADDVEFGAVPE......EF...............  354
NTDB id 1142 GTF74 RS11550 WP 000344154.1     IGQGKANACKYLKENPEIAKTLDKKLREMLLNPENMQLIAET.SSAADDVEFGAVPE......EF...............  354
NTDB id 1022 ACIAD RS06390 WP 004925639.1     IGQGKNNVIRYLEENPQISTEIEAVIREQLLTKASDQTAA.H.DETEEEPDLL..ES......................  349
NTDB id 1074 ABD1 RS10195 WP 000344167.1      IGQGKNNVIRYFEENNQIAEEIERNIREQLLTTGTNGAVQ.I..EDEEEPDLL..LE......S................  349
NTDB id 1205 PSJM300 05545 AFN77183.1         IGQGKANAAKYLEENPEIGQEIEQQIRAKLLVTSANTKATPV.AEDLADADI...........................  347
consensus                                     *!!!***** ** ***** ****  **   **
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X non conserved

X similar

X $\geq$ 50% conserved