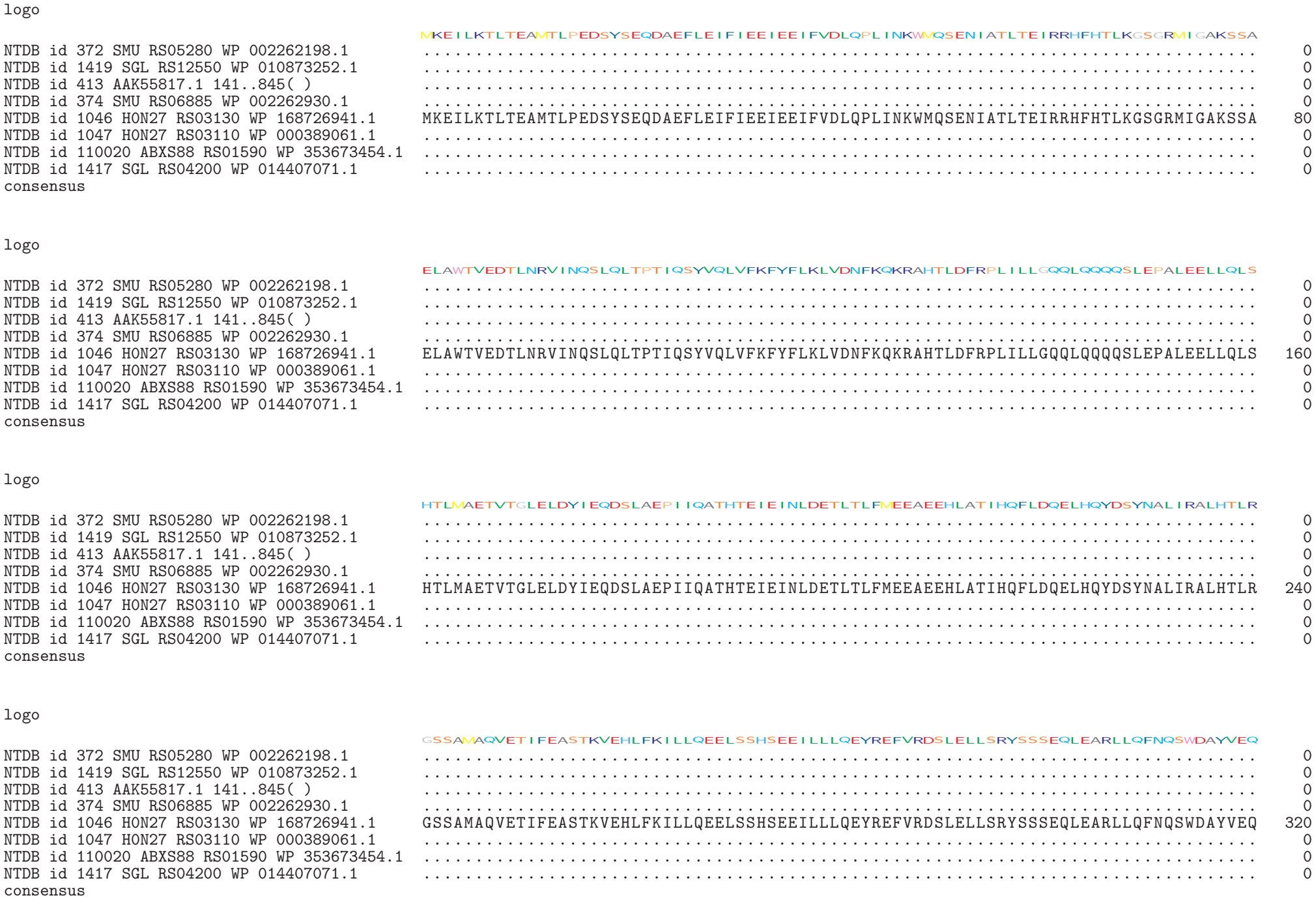
logo
MKEILKTLTEAMTLPEDSYSEQDAEFLEIFIEEIEEIFVDLQPLINKWMQSENIATLTEIRRHFHTLKGSGRMIGAKSSA
NTDB id 372 SMU RS05280 WP 002262198.1 0
NTDB id 1419 SGL RS12550 WP 010873252.1 0
NTDB id 413 AAK55817.1 141..845( ) 0
NTDB id 374 SMU RS06885 WP 002262930.1 0
NTDB id 1046 HON27 RS03130 WP 168726941.1 MKEILKTLTEAMTLPEDSYSEQDAEFLEIFIEEIEEIFVDLQPLINKWMQSENIATLTEIRRHFHTLKGSGRMIGAKSSA 80
NTDB id 1047 HON27 RS03110 WP 000389061.1 0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 0
NTDB id 1417 SGL RS04200 WP 014407071.1 0
consensus
logo
ELAWTVEDTLNRVINQSLQLTPTIQSYVQLVFKFYFLKLVDNFKQKRAHTLDFRPLILLGQQLQQQQSLEPALEELLQLS
NTDB id 372 SMU RS05280 WP 002262198.1 0
NTDB id 1419 SGL RS12550 WP 010873252.1 0
NTDB id 413 AAK55817.1 141..845( ) 0
NTDB id 374 SMU RS06885 WP 002262930.1 0
NTDB id 1046 HON27 RS03130 WP 168726941.1 ELAWTVEDTLNRVINQSLQLTPTIQSYVQLVFKFYFLKLVDNFKQKRAHTLDFRPLILLGQQLQQQQSLEPALEELLQLS 160
NTDB id 1047 HON27 RS03110 WP 000389061.1 0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 0
NTDB id 1417 SGL RS04200 WP 014407071.1 0
consensus
logo
HTLMAETVTGLELDYIEQDSLAEPIIQATHTEIEINLDETLTLFMEEAEEHLATIHQFLDQELHQYDSYNALIRALHTLR
NTDB id 372 SMU RS05280 WP 002262198.1 0
NTDB id 1419 SGL RS12550 WP 010873252.1 0
NTDB id 413 AAK55817.1 141..845( ) 0
NTDB id 374 SMU RS06885 WP 002262930.1 0
NTDB id 1046 HON27 RS03130 WP 168726941.1 HTLMAETVTGLELDYIEQDSLAEPIIQATHTEIEINLDETLTLFMEEAEEHLATIHQFLDQELHQYDSYNALIRALHTLR 240
NTDB id 1047 HON27 RS03110 WP 000389061.1 0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 0
NTDB id 1417 SGL RS04200 WP 014407071.1 0
consensus
logo
GSSAMAQVETIFEASTKVEHLFKILLQEELSSHSEEILLLQEYREFVRDSLELLSRYSSSEQLEARLLQFNQSWDAYVEQ
NTDB id 372 SMU RS05280 WP 002262198.1 0
NTDB id 1419 SGL RS12550 WP 010873252.1 0
NTDB id 413 AAK55817.1 141..845( ) 0
NTDB id 374 SMU RS06885 WP 002262930.1 0
NTDB id 1046 HON27 RS03130 WP 168726941.1 GSSAMAQVETIFEASTKVEHLFKILLQEELSSHSEEILLLQEYREFVRDSLELLSRYSSSEQLEARLLQFNQSWDAYVEQ 320
NTDB id 1047 HON27 RS03110 WP 000389061.1 0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 0
NTDB id 1417 SGL RS04200 WP 014407071.1 0
consensus

logo

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NTDB id 372 SMU RS05280 WP 002262198.1       ..................................................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1      ..................................................................................   0
NTDB id 413 AAK55817.1 141..845( )           ..................................................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1       ..................................................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1    HGDRTDPLMPSHGLVSQLLQLDVSELLDAELDFEKGIRNEFPDYLERLSEQADLLLQHTHSQAMLGLHEYTSQLKESYEV   400
NTDB id 1047 HON27 RS03110 WP 000389061.1     ..................................................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1  ..................................................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..................................................................................   0
consensus
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1       ..................................................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1      ..................................................................MTS               3
NTDB id 413 AAK55817.1 141..845( )           ..................................................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1       ..................................................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1    LLDKPALLQSDYIFEIYQKAHQQLIQLFDALAAGQRVGVVKQHQSILEELKLYTQYTPDISNDLPQQDSTSFEPIYNIEP   480
NTDB id 1047 HON27 RS03110 WP 000389061.1     ..................................................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1  ..................................................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..................................................................................   0
consensus
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1       ..................................................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1      DPN.........................................................PAQAFENWFEEEEGDDAFTSLI    28
NTDB id 413 AAK55817.1 141..845( )           ..................................................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1       ..................................................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1    EPEVVATVENFSDSADWAVLGQSVQQDRQYISSTQVNRNFDADLLDIFLEEAEELLEGIDTDLNIWVGEQENFAALNNLM   560
NTDB id 1047 HON27 RS03110 WP 000389061.1     ..................................................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1  ..................................................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..................................................................................   0
consensus
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1       ..................................................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1      AGE.........................................................................    31
NTDB id 413 AAK55817.1 141..845( )           ..................................................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1       ..................................................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1    RYLHTLKGGANMVQATYLGLIAHELESIYERLIQKQLVVTSDLIDFIRLVQDDLADRLQIMREQQLDYAAPYTINALKRA   640
NTDB id 1047 HON27 RS03110 WP 000389061.1     ..................................................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1  ..................................................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..................................................................................   0
consensus
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1       ..................................................    0
NTDB id 1419 SGL RS12550 WP 010873252.1      ETNSGIEELDFGDLFEGEPTVIQGEGFGS.....PSSGEEDPPVRMTLDFNSPEAELD   84
NTDB id 413 AAK55817.1 141..845( )           ..................................................    0
NTDB id 374 SMU RS06885 WP 002262930.1       ..................................................    0
NTDB id 1046 HON27 RS03130 WP 168726941.1    GQNSNFQPLPVVEAFDAESEVFSEQKVISEIIIDEIPVELEPALAELETHHDQVFDTAVTELATPVEMITTVTSQENEVA  720
NTDB id 1047 HON27 RS03110 WP 000389061.1    ..................................................    0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 ..................................................    0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..................................................    0
consensus
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logo


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NTDB id 372 SMU RS05280 WP 002262198.1       ..................................................    0
NTDB id 1419 SGL RS12550 WP 010873252.1      ..........ALFTDEDAPTTAIDPFESSSWLEIDQMMEADPLASIPETNAPAYQTAGGLDDNDLAELQDLLGVGDVEP  153
NTDB id 413 AAK55817.1 141..845( )           ..................................................    0
NTDB id 374 SMU RS06885 WP 002262930.1       ..................................................    0
NTDB id 1046 HON27 RS03130 WP 168726941.1    ANEQDIEAVVEQTFLEEATELLEMAESLLKQWFEQRTNR......S.................ILL.............  763
NTDB id 1047 HON27 RS03110 WP 000389061.1    ..................................................    0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 ..................................................    0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..................................................    0
consensus
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logo


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NTDB id 372 SMU RS05280 WP 002262198.1       ..................................................    0
NTDB id 1419 SGL RS12550 WP 010873252.1      AITNPGLHSFAGADRVTPLTNEVLL.FA........AIDDLDGLINAPVLDEEFSF..........TELETLIDTPAPKS  214
NTDB id 413 AAK55817.1 141..845( )           ..................................................    0
NTDB id 374 SMU RS06885 WP 002262930.1       ..................................................    0
NTDB id 1046 HON27 RS03130 WP 168726941.1    .QLQRAVHSLKGGARMVGLEAVQAIAYQLENAFEQFALHHFNSNIYDHLLESAIAWLKDAIFNHNYQHFDGLQQSLENIQ  842
NTDB id 1047 HON27 RS03110 WP 000389061.1    ..................................................    0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 ..................................................    0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..................................................    0
consensus
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1       ..................................................    0
NTDB id 1419 SGL RS12550 WP 010873252.1      FATISHPFRLPVAMEEDEDEFKDLEALLEQADSSLGGGIAGMGGARLPARP...RQVKSRSFEQTMRVPIKQLDNLSNLI  291
NTDB id 413 AAK55817.1 141..845( )           ..................................................    0
NTDB id 374 SMU RS06885 WP 002262930.1       ..................................................    0
NTDB id 1046 HON27 RS03130 WP 168726941.1    F..FETTIQIPTKLTRA.DLFSS.EP.......VMTFIQGDGTEPPPMMGAWEQTERLDQNNEMIRVSADLIEKMIDLS  910
NTDB id 1047 HON27 RS03110 WP 000389061.1    ..................................................    0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 ..................................................    0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..................................................    0
consensus
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logo

```
NTDB id 372 SMU RS05280 WP 002262198.1        ..........................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1       GELVVKRNRLEQDQERLRQFLDNLLNQAQNLSDVGGRMQDLYERTLLEGALLASRSTNSRHHSSKTTYPDARITASSSST  371
NTDB id 413 AAK55817.1 141..845( )            ..........................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1        ..........................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1     GENSINRSRIEMDLSQFSHTLVEMELAIQRLADQLRRMEGELETQI..........IAKHGIEH  964
NTDB id 1047 HON27 RS03110 WP 000389061.1     ..........................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1  ..........................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1       ..........................................................   0
consensus
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1        ..........................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1       MNDQPLDALEMDRFTGFHLLSQEMIELIVRVRESASDIQYLVDETDQVARTLRQVTTQLQEGMTKSRMVPFTQTADRLPR  451
NTDB id 413 AAK55817.1 141..845( )            ..........................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1        ..........................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1     SRYTDFDPLEMDQYSSLNQLSKSLAESASDLVDFKNTLSDKIRDTESLLLQQSRIQAEIQEGLMRTRLVPFSRLLPRLQR 1044
NTDB id 1047 HON27 RS03110 WP 000389061.1     ..........................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1  ..........................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1       ..........................................................   0
consensus
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logo

```
NTDB id 372 SMU RS05280 WP 002262198.1        ..........................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1       AIREVSMKLNKKVNLEVEGGDVLIDKMILEHLYNPMTHLVNNAITHGIETPAERQKLGKSPEGHLAVRAFLQGNQTLITV  531
NTDB id 413 AAK55817.1 141..845( )            ..........................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1        ..........................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1     IVRQTSTALNRPAELFVNNTEGELDRNILERLVTPLEHMLRNAIDHGLEDRAQRQQANKPETGRIELNIQRQGTDVVVVF 1124
NTDB id 1047 HON27 RS03110 WP 000389061.1     ..........................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1  ..........................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1       ..........................................................   0
consensus
```

logo

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NTDB id 372 SMU RS05280 WP 002262198.1        ..........................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1       SDDGAGINTEMVKQKAVEKGLISRMEAQSLSQSEVYDLLFHAGFSTKDTADDFAGRGVGLDVVRTSLIDIRGAINIESTV  611
NTDB id 413 AAK55817.1 141..845( )            ..........................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1        ..........................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1     SDDGQGIDVEKVRQKALLAGLIKP..EQDLEQQDILQLIFHPGLSTAEQVTQISGRGVGLDVVQSDIKSLGGHVSVESVY 1202
NTDB id 1047 HON27 RS03110 WP 000389061.1     ..........................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1  ..........................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1       ..........................................................   0
consensus
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1       ..........................................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1      GKGTTFTIRLPLTLSICKALCCLSDRARIAFPMDGVEDTRDYLPKDIVTD.EDGQKCVKYGKEALLLPLYPLKDLLNYNR  690
NTDB id 413 AAK55817.1 141..845( )           ..........................................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1       ..........................................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1    GQGTTFTIRVPTTVAVSDALMVKVADQQFAIPLAQIDRIIRVSPASLEQYFESPQELFEYEN.....KRYPLRYLSEFVG 1277
NTDB id 1047 HON27 RS03110 WP 000389061.1    ..........................................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 ..........................................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..........................................................................   0
consensus
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1       ..........................................................................   0
NTDB id 1419 SGL RS12550 WP 010873252.1      QLSRGSVYGGKQEEDVVRVIIARGSSGNLLALQIDQVLGEEE.IVIKQIEGPIPKPPGIAGATVRGDGSIMPIADVLELI  769
NTDB id 413 AAK55817.1 141..845( )           ..........................................................................   0
NTDB id 374 SMU RS06885 WP 002262930.1       ..........................................................................   0
NTDB id 1046 HON27 RS03130 WP 168726941.1    NQPIPRLNG...VMYSLPVLMIKANNGQTVALLVDQLIGSRAQIVVKPIGQQFSSIGAIAGATILGDGQVCLILDGQNIA 1354
NTDB id 1047 HON27 RS03110 WP 000389061.1    ..........................................................................   0
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 ..........................................................................   0
NTDB id 1417 SGL RS04200 WP 014407071.1      ..........................................................................   0
consensus
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logo

```
NTDB id 372 SMU RS05280 WP 002262198.1       ..........................MNYKEKKILILDDNPEILEMVQESLNIAGFNNLTGVQSKKEALEQLGKRSF.DL   53
NTDB id 1419 SGL RS12550 WP 010873252.1      EIAQGRLRT.DSSGGLWRKTLTPTVNEVHMDPTVLIVDDSITVRELLSLSFKKAGFRVEQARD.GQEAWDQLKSGLPCDL  847
NTDB id 413 AAK55817.1 141..845( )           ..........................MKKILIVDDEKPISDIIKFNMTKEGYEVVTAFN.GREALEQFEAEQP.DI   48
NTDB id 374 SMU RS06885 WP 002262930.1       ..........................MKKILIVDDEKPISDIIKFNLAKEGYDTITAFD.GREALSKYEEENP.DL   48
NTDB id 1046 HON27 RS03130 WP 168726941.1    RQIQSTQRHKQLSEAVY......RQRESDERRLIMIVDDSVTVRKVTSRLLERQGYDVVTAKD.GVDAIEQLENIKP.DL 1426
NTDB id 1047 HON27 RS03110 WP 000389061.1    ..........................MEDAFQNLKVMVIDDSKTIRRTAETLLQREGCEVITAVD.GFEALSKIAEANP.DI   54
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 ..........................MSEVLLVEDSSSQREMISGILRDNGWKVTVACD.GVEALEHLQKFSP.DL   48
NTDB id 1417 SGL RS04200 WP 014407071.1      ..........................MNAVLLVEDSSSQREMISGILKDHGWQVTIACD.GVEALEKLQNFSP.DL   48
consensus                                                              *****!* ******   * * !* **** * * *!** *    * !*
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1       AILDIMLPDGSGFEVLREIRK...TSTIPVLFLSAVSDIEKQYQGFELGADDYIVKPFRPKELELRILSILKRAYPEKDD  130
NTDB id 1419 SGL RS12550 WP 010873252.1      VFCDIEMPRKNGLELLSELQADEELSSIPVALLTSRGADRHRKVAAKLGATGYFTKPYTEKDILDAANRMLNGEVLLPGS  927
NTDB id 413 AAK55817.1 141..845( )           IILDLMLPEIDGLEVAKTIRK...TSSVPILMLSAKDSEFDKVIGLELGADDYVTKPFSNRELQARVKALLRRSQPMPVD  125
NTDB id 374 SMU RS06885 WP 002262930.1       IILDLMLPELDGLEVAKEVRK...NSHVPIIMLSAKDSEFDKVIGLEIGADDYVTKPFSNRELLARVKAHLRRTENIESA  125
NTDB id 1046 HON27 RS03130 WP 168726941.1    MLLDIEMPRMDGFEVLNLVRHHDMHQYMPIIMITSRTGEKHRERAFSLGVSQYMGKPFQEEELLENIDALLVAFESEVKS 1506
NTDB id 1047 HON27 RS03110 WP 000389061.1    VFVDIMMPRLDGYQTCALIKNSQNYQNIPVIMLSSKDGLFDQAKGRVVGSDEYLTKPFSKDELLNAIRNHVSS.....  127
NTDB id 110020 ABXS88 RS01590 WP 353673454.1 VVLDIVMPRMNGYEVCRRIKSDPKTKNVPVIMCSSKGEEFDRYWGMRQGADAYIAKPFQPVELVGTIKQLLRG.....  121
NTDB id 1417 SGL RS04200 WP 014407071.1      VVLDIVMPRMNGYEVCRRIKSDPKTKNVPVIMCSSKGEEFDRFWGMRQGADAYIAKPFQPMELVGTIKQLLRN.....  121
consensus                                    ***!***!** !***  * **       *!******* ****  *  *!** !* !!*   ***  **  ***
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logo

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NTDB id 372 SMU RS05280 WP 002262198.1          TLILPTCQVN.......FSQ....ALITKGELEIQLTAKEYSILKVLYNNQNRIVTFDQLLEK.................V   183
NTDB id 1419 SGL RS12550 WP 010873252.1         TRKTNSILSRFKKARGNFSEEAPTIVRSNPGTL.....R.....STVLIIDDSVMVREMLSMTFKKADYHTETARDGQDA   997
NTDB id 413 AAK55817.1 141..845( )              GQ.EADSKPQ.PIQIGDLEIVPDAYVAKKYGEELDLTHREFELLYHLASHTGQVITREHLLET.................V   187
NTDB id 374 SMU RS06885 WP 002262930.1          VAEENASGIP.EIIIGDLQILPDAFVAKKRGTEVELTHREFELLHHLATHTGQVMTREHLLET.................V   188
NTDB id 1046 HON27 RS03130 WP 168726941.1       ..................................................................................  1506
NTDB id 1047 HON27 RS03110 WP 000389061.1       ..................................................................................   127
NTDB id 110020 ABXS88 RS01590 WP 353673454.1    ..................................................................................   121
NTDB id 1417 SGL RS04200 WP 014407071.1         ..................................................................................   121
consensus
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<0

logo

```
NTDB id 372 SMU RS05280 WP 002262198.1          WGLQYQGYENTMMA........HIRKIRQKIEANPSK...PECLLTVK.............GLGYKLKVS...........   229
NTDB id 1419 SGL RS12550 WP 010873252.1         WEKLKSGLPCDLILCDIEMPRMNGLELLERIQEDPNLSRIPVAMITSRGAQKMQRMAAEKGAKGYFVKPYIEETLLEASQ  1077
NTDB id 413 AAK55817.1 141..845( )              WGYDYFG...DVRTVDVTV.....RRLREKIEDTPSR...PEYILT..............RRGVGYYMRNNA*.........   234
NTDB id 374 SMU RS06885 WP 002262930.1          WGYDYFG...DVRTVDVTV.....RRLREKIEDTPSR...PEYILT..............RRGVGYYMKSYD.........   235
NTDB id 1046 HON27 RS03130 WP 168726941.1       ..................................................................................  1506
NTDB id 1047 HON27 RS03110 WP 000389061.1       ..................................................................................   127
NTDB id 110020 ABXS88 RS01590 WP 353673454.1    ..................................................................................   121
NTDB id 1417 SGL RS04200 WP 014407071.1         ..................................................................................   121
consensus
```

logo


```
NTDB id 372 SMU RS05280 WP 002262198.1          ...................   229
NTDB id 1419 SGL RS12550 WP 010873252.1         RLIRGEVLLDLAALSADE  1095
NTDB id 413 AAK55817.1 141..845( )              ...................   234
NTDB id 374 SMU RS06885 WP 002262930.1          ...................   235
NTDB id 1046 HON27 RS03130 WP 168726941.1       ...................  1506
NTDB id 1047 HON27 RS03110 WP 000389061.1       ...................   127
NTDB id 110020 ABXS88 RS01590 WP 353673454.1    ...................   121
NTDB id 1417 SGL RS04200 WP 014407071.1         ...................   121
consensus
```

X non conserved
X similar
X ≥ 50% conserved