```
logo
NTDB id 1073 ABD1 RS00865 WP 015451369.1      MLTQLSSHHYHTLKVWYLVQHSLVSFKKIIDYFGNCEKATQPDGLAKWSSLGLHAN...............HLKRVNEFQT   66
NTDB id 114 BSU 16110 NP 389493.1             ....................MDQAAVCLTICRINQLLSPSLLLK...WWKADPSMSLTSPV.LQ........TVTRDQIKA   49
NTDB id 1250 GC085 RS13065 WP 027219989.1     ....................MNNLQPLL.ALNRMKRIGPRTVLKLQKRWPDLNLMFQLSSVDLEEAGLPSWLAQTIKNFDP   60
NTDB id 599 KW2 RS05940 WP 021037268.1        .....MITNFDLFRWKKAGMTNLGVNK.LLKFFRKYDRKISL.........RQMGQ.....VAQVKSIPNFIEQYKNQDV   60
NTDB id 525 SMSK321 RS06295 WP 000705298.1    ....MKITNYEIYKLKKSGLTNQQILK.VLEYGENVDQELLL.........GDIAD.....ISGCRNPAVFMERYFQIDD   61
NTDB id 267 KZH43 RS05590 WP 000705306.1      ....MKITNYEIYKLKKSGLTNQQILK.VLEYGENVDQELLL.........GDIAD.....ISGCRNPAVFMERYFQIDD   61
NTDB id 226 SPD RS05990 WP 000705306.1        ....MKITNYEIYKLKKSGLTNQQILK.VLEYGENVDQELLL.........GDIAD.....ISGCRNPAVFMERYFQIDD   61
NTDB id 192 SPR RS05715 WP 000705306.1        ....MKITNYEIYKLKKSGLTNQQILK.VLEYGENVDQELLL.........GDIAD.....ISGCRNPAVFMERYFQIDD   61
NTDB id 157 SP RS06205 WP 000705306.1         ....MKITNYEIYKLKKSGLTNQQILK.VLEYGENVDQELLL.........GDIAD.....ISGCRNPAVFMERYFQIDD   61
NTDB id 497 SM12261 RS05565 WP 000705318.1    ....MKITNYEIYKLKKSGLTNQQVLA.VLEYGENVDQELLL.........GDIAE.....ISGCRNPAVFMERYFQIDD   61
NTDB id 1139394 DQM69 RS04500 WP 109982562.1 .....MNNFELFKLKQAGLTNLQILN.ILDYRKEIGKSLSL.........RDMAV.....VSQTSKAGHFMETYKHLDL   59
NTDB id 407 SMU RS04605 WP 002262865.1        .....MDNFQLFKLKKAGLTNLNILN.IIDYEERTQKSLSL.........RDMAV.....VSKNKKPLIFMEHYKNLDS   59
consensus                                        * *********** **** **** **** ****  ***         ****      **  * ******** ***

logo
NTDB id 1073 ABD1 RS00865 WP 015451369.1      TQGQAQ.......FEQLVQQVRQHTDFILTPDDSGYPTQLLPYTDHPPIIFGKGQAQALLQ.PQIAIVGSRKPSPHGRQV  138
NTDB id 114 BSU 16110 NP 389493.1             AALKNEIEQFYPKLPRVLAAYREQGINTIPISSKQYPFWLKSIYDPPAVLFAKGDMTLLSKGRKIGIVGTRNPTAYGKQV  129
NTDB id 1250 GC085 RS13065 WP 027219989.1     DFIKTDLNW....LS......SSENHHILTWDSPYYPALLKEIADPPFILYAKGELSALTQ.PSLAIVGSRNASVTGNEN  129
NTDB id 599 KW2 RS05940 WP 021037268.1        KKLRADYKK....FS............SFSILDDLYPERLREIYNPPVLIFYQGNIDLLKN.PKLAFVGSRLAGQSGIKS  123
NTDB id 525 SMSK321 RS06295 WP 000705298.1    AHLEKEFKK....IP............SFSILDDCYPWDLSEIYDAPVLLFYKGNLDLLKF.PKVAVVGSRSCSKQGAKS  124
NTDB id 267 KZH43 RS05590 WP 000705306.1      AHLSKEFQK....FP............SFSILDDCYPWDLSEIYDAPVLLFYKGNLDLLKF.PKVAVVGSRACSKQGAKS  124
NTDB id 226 SPD RS05990 WP 000705306.1        AHLSKEFQK....FP............SFSILDDCYPWDLSEIYDAPVLLFYKGNLDLLKF.PKVAVVGSRACSKQGAKS  124
NTDB id 192 SPR RS05715 WP 000705306.1        AHLSKEFQK....FP............SFSILDDCYPWDLSEIYDAPVLLFYKGNLDLLKF.PKVAVVGSRACSKQGAKS  124
NTDB id 157 SP RS06205 WP 000705306.1         AHLSKEFQK....FP............SFSILDDCYPWDLSEIYDAPVLLFYKGNLDLLKF.PKVAVVGSRACSKQGAKS  124
NTDB id 497 SM12261 RS05565 WP 000705318.1    AHLEKEFQK....FP............SFSILDDCYPWDLSEIYDAPVLLFYKGNLDLLKF.PKVAVVGSRACSKQGAKS  124
NTDB id 1139394 DQM69 RS04500 WP 109982562.1 KDLRQQFNR....FP............SLSILDKEYPEDLAQIYNPPVLLFYQGDLTLLDA.PKLSLVGSRNCTQMGTKS  122
NTDB id 407 SMU RS04605 WP 002262865.1        KALRKEFNR....FP............SLSILDKEYPLELKNIYNPPVLLFYQGDLDLLAR.PKLAVVGSRNASQMGVAA  122
consensus                                     * * *****    **           ******* !!**! **** !******!****!*  *****!!*! **  ! **

logo
NTDB id 1073 ABD1 RS00865 WP 015451369.1      AYDFAYYLSEKGFFISSGLAYGIDEAAHQGAS.AHQRTIAVTGTGLDTTYPAQNKKLAEYILAQNGAIITEFLPGTPPLQ  217
NTDB id 114 BSU 16110 NP 389493.1             VNHLTKEICRKGWVIVSGLASGIDGMSHAASIKAKGRTIGVIAGGFQHIYPRENLQLADHM.AKHHILLSEHPPETKPQK  208
NTDB id 1250 GC085 RS13065 WP 027219989.1     ARAFSREISRHGVSIVSGLALGIDAHAHLGCLEGGGKTIAVLGTGIDCIYPRRHLKLAEQI.TENGLLLSEFPLKSPPIA  208
NTDB id 599 KW2 RS05940 WP 021037268.1        VQKIVTELN.QSFTIVSGLAKGIDTASHLSAIKTKTPTIAVIGTGLDIFYPLENRKIQEYL.AKYQLVLSEYSLGEKPLK  201
NTDB id 525 SMSK321 RS06295 WP 000705298.1    VEKIIQGLE.NELVIVSGLAKGIDTAAHMAALQNGGKTIAVIGTGLDVFYPKANKRLQDYI.SNDHLVLSEYGPGEQPLK  202
NTDB id 267 KZH43 RS05590 WP 000705306.1      VEKVIQGLE.NELVIVSGLAKGIDTAAHMAALQNGGKTIAVIGTGLDVFYPKANKRLQDYI.GNDHLVLSEYGPGEQPLK  202
NTDB id 226 SPD RS05990 WP 000705306.1        VEKVIQGLE.NELVIVSGLAKGIDTAAHMAALQNGGKTIAVIGTGLDVFYPKANKRLQDYI.GNDHLVLSEYGPGEQPLK  202
NTDB id 192 SPR RS05715 WP 000705306.1        VEKVIQGLE.NELVIVSGLAKGIDTAAHMAALQNGGKTIAVIGTGLDVFYPKANKRLQDYI.GNDHLVLSEYGPGEQPLK  202
NTDB id 157 SP RS06205 WP 000705306.1         VEKVIQGLE.NELVIVSGLAKGIDTAAHMAALQNGGKTIAVIGTGLDVFYPKANKRLQDYI.GNDHLVLSEYGPGEQPLK  202
NTDB id 497 SM12261 RS05565 WP 000705318.1    VEKVIQGLE.NELVIVSGLAKGIDTAAHMAALQNGGKTIAVIGTGLDVFYPKANKRLQDYI.GNDHLVLSEYGPGEQPLK  202
NTDB id 1139394 DQM69 RS04500 WP 109982562.1 VQKIIRDLE.NRFVIVSGLARGIDTAAHIACLKNGGKTIAVVGTGLDVYYPKENRDLQDYL.AKHHLVLSEYEPGQDPLK  200
NTDB id 407 SMU RS04605 WP 002262865.1        VKKIIQDLS.KQFVIISGLARGIDTAAHLASLKSGGATIAVIGTGLDVHYPKENRRLQDYI.AKNHLLLSEYEAQSQPLK  200
consensus                                     * **** ** * **!*!!!!*!!!***!**** ****!!*!***!****!!* ******** ** *****!* ****!**
```

```
logo

NTDB id 1073 ABD1 RS00865 WP 015451369.1      QHFPRRNRIVSGLSLGVLVVEATLKSGSLITANKAAEQGKTVFAIPGHIYSEFHQGCHQLIREGAILIDHPEQIIEDLAL   297
NTDB id 114 BSU 16110 NP 389493.1             WHFPMRNRIISGLSEGVIVVQGKEKSGSLITAYQALEQGREVFAVPGSLFDPYAGGPIKLIQQGAKAIWSAEDIFEELPE   288
NTDB id 1250 GCO85 RS13065 WP 027219989.1     GHFPLRNRIISGLSLCILVIEAAIKSGSLITARMALEQNRDVLAIPGSIHNPLARGCHYLLQQGAKLVTSVADVLDELKI   288
NTDB id 599 KW2 RS05940 WP 021037268.1        YHFPERNRIIAGLSRGVVVVEAKLRSGSLITCERALEEGRDIFAIPGNIADGTSDGCNHLIQQGAKLVYQAQDILEEYLY   281
NTDB id 525 SMSK321 RS06295 WP 000705298.1    FHFPARNRIIAGLCRGVIVAEAKMRSGSLITCERAMEEGRDVFAIPGSILDGLSDGCHHLIQEGAKLVTSGQDVLAEFEF   282
NTDB id 267 KZH43 RS05590 WP 000705306.1      FHFPARNRIIAGLCRGVIVAEAKMRSGSLITCERAMEEGRDVFAIPGSILDGLSDGCHHLIQEGAKLVTSGQDVLAEFEF   282
NTDB id 226 SPD RS05990 WP 000705306.1        FHFPARNRIIAGLCRGVIVAEAKMRSGSLITCERAMEEGRDVFAIPGSILDGLSDGCHHLIQEGAKLVTSGQDVLAEFEF   282
NTDB id 192 SPR RS05715 WP 000705306.1        FHFPARNRIIAGLCRGVIVAEAKMRSGSLITCERAMEEGRDVFAIPGSILDGLSDGCHHLIQEGAKLVTSGQDVLAEFEF   282
NTDB id 157 SP RS06205 WP 000705306.1         FHFPARNRIIAGLCRGVIVAEAKMRSGSLITCERAMEEGRDVFAIPGSILDGLSDGCHHLIQEGAKLVTSGQDVLAEFEF   282
NTDB id 497 SM12261 RS05565 WP 000705318.1    FHFPARNRIIAGLCRGVIVAEAKMRSGSLITCERAMEEGRDVFAIPGSILDGLSDGCHHLIQEGAKLVTSGQDVLAEFEF   282
NTDB id 1139394 DQM69 RS04500 WP 109982562.1 FHFPERNRIIAGLSRGTVVVQAKQRSGSLITCERAMEEGRDVFAVPGNIIDGQSDGCYHLIQEGAKCIMTGQDILAEYE.   279
NTDB id 407 SMU RS04605 WP 002262865.1        YHFPERNRIIAGLSQGVMVAEAKIRSGSLITCERAMEEGRDVFVVPGNILDGQSEGCHHLIQEGAKCITSGFDILNEFNF   280
consensus                                     *!!! !!!!**!! ****!*****!!!!!!***!*!********!!********!***!***!!**************

logo

NTDB id 1073 ABD1 RS00865 WP 015451369.1      PTQWQSQQQNQTEEANTNTPEIREHLIDLYQSLDWVGQNIDQLVVHHNIPVSELTSSLMELELLGLCMQQSGLYLRCRS.   376
NTDB id 114 BSU 16110 NP 389493.1             RNVQYTEPF.........................................................................   297
NTDB id 1250 GCO85 RS13065 WP 027219989.1     EHHQFTSNKPI........FSLASGKENLVKFIGFETTTIDQIIDRSGYGMEQVTSGLAELELKGAVIAVPGGYIRCEYE   360
NTDB id 599 KW2 RS05940 WP 021037268.1        N.................................................................................   282
NTDB id 525 SMSK321 RS06295 WP 000705298.1    .................................................................................   282
NTDB id 267 KZH43 RS05590 WP 000705306.1      .................................................................................   282
NTDB id 226 SPD RS05990 WP 000705306.1        .................................................................................   282
NTDB id 192 SPR RS05715 WP 000705306.1        .................................................................................   282
NTDB id 157 SP RS06205 WP 000705306.1         .................................................................................   282
NTDB id 497 SM12261 RS05565 WP 000705318.1    .................................................................................   282
NTDB id 1139394 DQM69 RS04500 WP 109982562.1  .................................................................................   279
NTDB id 407 SMU RS04605 WP 002262865.1        .................................................................................   280
consensus

logo

NTDB id 1073 ABD1 RS00865 WP 015451369.1      .   376
NTDB id 114 BSU 16110 NP 389493.1             .   297
NTDB id 1250 GCO85 RS13065 WP 027219989.1     R   361
NTDB id 599 KW2 RS05940 WP 021037268.1        .   282
NTDB id 525 SMSK321 RS06295 WP 000705298.1    .   282
NTDB id 267 KZH43 RS05590 WP 000705306.1      .   282
NTDB id 226 SPD RS05990 WP 000705306.1        .   282
NTDB id 192 SPR RS05715 WP 000705306.1        .   282
NTDB id 157 SP RS06205 WP 000705306.1         .   282
NTDB id 497 SM12261 RS05565 WP 000705318.1    .   282
NTDB id 1139394 DQM69 RS04500 WP 109982562.1  .   279
NTDB id 407 SMU RS04605 WP 002262865.1        .   280
consensus
```

X non conserved

X similar

X ≥ 50% conserved