









logo

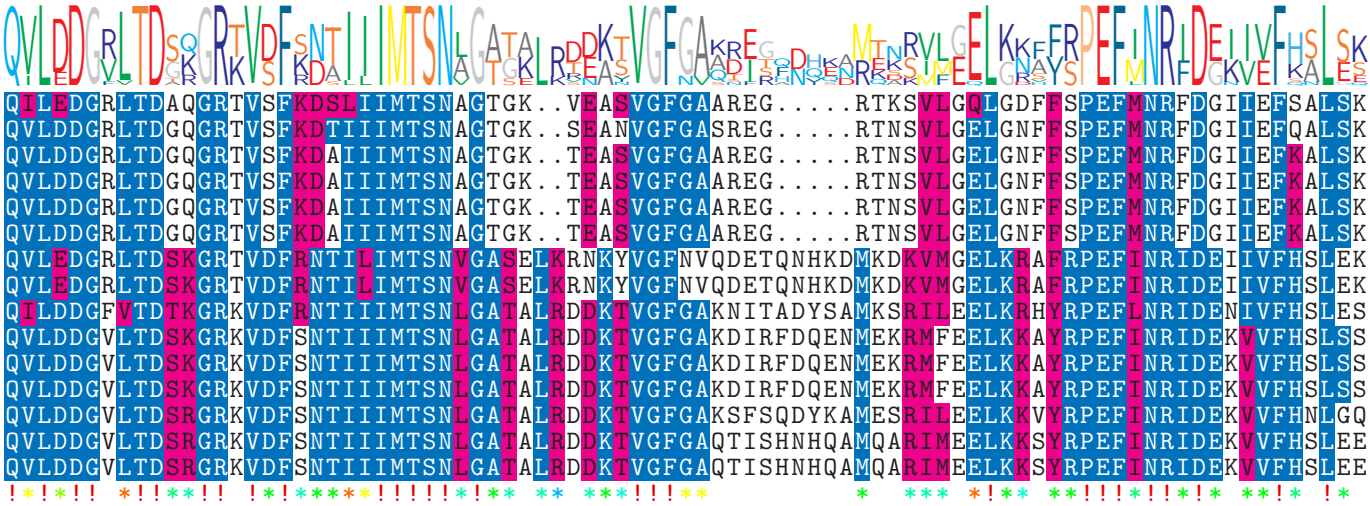
|                                           |                |              |            |              |          |           |           |          |          |         |                |             |     |
|-------------------------------------------|----------------|--------------|------------|--------------|----------|-----------|-----------|----------|----------|---------|----------------|-------------|-----|
| NTDB id 601 KW2 RS02615 WP 021036805.1    | EVTDEMPVITEKDI | EQVIEQKTQIPV | GDLKEKE    | EQTQLNL      | ADDLKAHV | IGQDEAV   | DKITS     | KAIRRSRV | GLGKPN   | RPIGSF  | LFVGP          | 482         |     |
| NTDB id 378 SMU RS02690 WP 002263569.1    | KLDKENTPVITEKN | IEVIVEQKTNI  | IPVGELKEKE | EQSQLIHL     | ADDLKTR  | VIGQDA    | AVDKIA    | KAIRNRNV | GLGTPN   | RPIGSF  | LFVGP          | 489         |     |
| NTDB id 241 SP RS04015 WP 000882523.1     | KITDQDTPSISEKT | IEHIEQKTNI   | IPVGD      | LKEKEQSQLIHL | AEDLKSH  | VIGQDA    | VDKIA     | KAIRNRNV | GLGTPN   | RPIGSF  | LFVGP          | 488         |     |
| NTDB id 281 KZH43 RS03550 WP 000882517.1  | KITDQDTPPISEKT | IEHIEQKTNI   | IPVGD      | LKEKEQSQLIHL | AEDLKSH  | VIGQDA    | VDKIA     | KAIRNRNV | GLGTPN   | RPIGSF  | LFVGP          | 488         |     |
| NTDB id 245 SPD RS03860 WP 000882517.1    | KITDQDTPPISEKT | IEHIEQKTNI   | IPVGD      | LKEKEQSQLIHL | AEDLKSH  | VIGQDA    | VDKIA     | KAIRNRNV | GLGTPN   | RPIGSF  | LFVGP          | 488         |     |
| NTDB id 243 SPR RS03635 WP 000882517.1    | KITDQDTPPISEKT | IEHIEQKTNI   | IPVGD      | LKEKEQSQLIHL | AEDLKSH  | VIGQDA    | VDKIA     | KAIRNRNV | GLGTPN   | RPIGSF  | LFVGP          | 488         |     |
| NTDB id 36309 C663 RS00580 WP 014475592.1 | EKQGGENSEVIVDD | IAMVVS       | SWTGV      | VPVSK        | IAQTETD  | KLINMENIL | HSRVIGQDE | AVVAVAKA | VRRARAG  | LKDPK   | RPIGSFIFLGP    | 546         |     |
| NTDB id 85 BSU 00860 NP 387967.1          | EKQGGENSEVIVDD | IAMVVS       | SWTGV      | VPVSK        | IAQTETD  | KLINMENIL | HSRVIGQDE | AVVAVAKA | VRRARAG  | LKDPK   | RPIGSFIFLGP    | 546         |     |
| NTDB id 610 V4T04 RS10165 WP 012897346.1  | VKEDKRQEVTDQAV | VAVASTLT     | TGVPIT     | QMTKSE       | SDRLIN   | LEKELH    | KRVVGG    | EATSAV   | SRAIRRAR | SGVADSR | PMGSFMFLGP     | 555         |     |
| NTDB id 290 KZH43 RS10025 WP 001109677.1  | VPV.YKDLV      | TESDIL       | TTL        | SRLSGIP      | VQKLT    | QTDAKKY   | NLEAEL    | HKRVIGQD | QAVSSI   | SRAIRRN | QSGIRSHK       | RPIGSFMFLGP | 550 |
| NTDB id 289 SPD RS10700 WP 001109677.1    | VPV.YKDLV      | TESDIL       | TTL        | SRLSGIP      | VQKLT    | QTDAKKY   | NLEAEL    | HKRVIGQD | QAVSSI   | SRAIRRN | QSGIRSHK       | RPIGSFMFLGP | 550 |
| NTDB id 287 SP RS11210 WP 001109712.1     | VPV.YKDLV      | TESDIL       | TTL        | SRLSGIP      | VQKLT    | QTDAKKY   | NLEAEL    | HKRVIGQD | QAVSSI   | SRAIRRN | QSGIRSHK       | RPIGSFMFLGP | 550 |
| NTDB id 377 SMU RS09275 WP 002262344.1    | PLLKKRAEVKEED  | ILATLS       | SKLSGIP    | VKKLT        | QADSKKY  | NLEREL    | HKRVIGQD  | DAVSSI   | SRAIRRN  | QSGIRV  | GKRPIGSFMFLGP  | 553         |     |
| NTDB id 297 STER RS00545 WP 011680614.1   | AKFPKPALVDADQ  | LMQTL        | SRLSGIP    | VEKMT        | QTDSKRY  | NLESEL    | HKRVIGQDE | AVSATS   | SRAIRRN  | QSGIR   | TGKRPIGSFMFLGP | 556         |     |
| NTDB id 329 STU RS10020 WP 011225298.1    | AKFPKPALVDADQ  | LMQTL        | SRLSGIP    | VEKMT        | QTDSKRY  | NLESEL    | HKRVIGQDE | AVSATS   | SRAIRRN  | QSGIR   | TGKRPIGSFMFLGP | 556         |     |
| consensus                                 | *              | *****        | *          | ****         | *****!   | *         | *         | *****    | *        | *****   | *****!         | *****!      |     |

logo

|                                           |                 |      |       |       |                  |        |             |            |           |                 |                  |        |     |
|-------------------------------------------|-----------------|------|-------|-------|------------------|--------|-------------|------------|-----------|-----------------|------------------|--------|-----|
| NTDB id 601 KW2 RS02615 WP 021036805.1    | TGVGKTELAKQLAKE | LF   | FGSS  | ES    | SMIRFDMSEYMEKHSV | AKLV   | GAPPGYVGY   | EE         | AGQLTERVR | RNPYS           | LILLDETEKAHPDVMH | MFL    | 567 |
| NTDB id 378 SMU RS02690 WP 002263569.1    | TGVGKTELSKQLA   | IEL  | FGS   | ED    | SMIRFDMSEYMEKHAV | AKLV   | GAPPGYVGY   | EE         | AGQLTEKVR | RNPYS           | LILLDEVEKAHPDVMH | MFL    | 574 |
| NTDB id 241 SP RS04015 WP 000882523.1     | TGVGKTELSKQLA   | IEL  | FGS   | AD    | SMIRFDMSEYMEKHSV | AKLV   | GAPPGYVGYDE | AGQLTEKVR  | HN        | RNPYS           | LILLDEVEKAHPDVMH | MFL    | 573 |
| NTDB id 281 KZH43 RS03550 WP 000882517.1  | TGVGKTELSKQLA   | IEL  | FGS   | AD    | SMIRFDMSEYMEKHSV | AKLV   | GAPPGYVGYDE | AGQLTEKVR  | HN        | RNPYS           | LILLDEVEKAHPDVMH | MFL    | 573 |
| NTDB id 245 SPD RS03860 WP 000882517.1    | TGVGKTELSKQLA   | IEL  | FGS   | AD    | SMIRFDMSEYMEKHSV | AKLV   | GAPPGYVGYDE | AGQLTEKVR  | HN        | RNPYS           | LILLDEVEKAHPDVMH | MFL    | 573 |
| NTDB id 243 SPR RS03635 WP 000882517.1    | TGVGKTELSKQLA   | IEL  | FGS   | AD    | SMIRFDMSEYMEKHSV | AKLV   | GAPPGYVGYDE | AGQLTEKVR  | HN        | RNPYS           | LILLDEVEKAHPDVMH | MFL    | 573 |
| NTDB id 36309 C663 RS00580 WP 014475592.1 | TGVGKTELARALAE  | SIF  | GD    | ES    | SMIRIDMSEYMEKHST | SRLV   | GSPPGYVGYDE | EGGQLTEKVR | R         | KPYSV           | LLDETEKAHPDVFN   | ILL    | 631 |
| NTDB id 85 BSU 00860 NP 387967.1          | TGVGKTELARALAE  | SIF  | GD    | ES    | SMIRIDMSEYMEKHST | SRLV   | GSPPGYVGYDE | EGGQLTEKVR | R         | KPYSV           | LLDETEKAHPDVFN   | ILL    | 631 |
| NTDB id 610 V4T04 RS10165 WP 012897346.1  | TGVGKTELAKALAE  | SV   | FGS   | ED    | NMIRVDMSEYMEKHST | SRLV   | GAPPGYVGYDE | EGGQLTERVR | RNPYS     | VLLDEVEKAHPDVFN | IML              | 640    |     |
| NTDB id 290 KZH43 RS10025 WP 001109677.1  | TGVGKTELAKALAE  | VL   | FDD   | ES    | ALIRFDMSEYMEKFAA | SRLN   | GAPPGYVGY   | EE         | GGELTEKVR | NKPYSV          | LLFDEVEKAHPDIFN  | VLL    | 635 |
| NTDB id 289 SPD RS10700 WP 001109677.1    | TGVGKTELAKALAE  | VL   | FDD   | ES    | ALIRFDMSEYMEKFAA | SRLN   | GAPPGYVGY   | EE         | GGELTEKVR | NKPYSV          | LLFDEVEKAHPDIFN  | VLL    | 635 |
| NTDB id 287 SP RS11210 WP 001109712.1     | TGVGKTELAKALAE  | VL   | FDD   | ES    | ALIRFDMSEYMEKFAA | SRLN   | GAPPGYVGY   | EE         | GGELTEKVR | NKPYSV          | LLFDEVEKAHPDIFN  | VLL    | 635 |
| NTDB id 377 SMU RS09275 WP 002262344.1    | TGVGKTELAKALAE  | VL   | FDD   | ES    | ALIRFDMSEYMEKFAA | SRLN   | GAPPGYVGY   | EE         | GGELTEKVR | NKPYSV          | LLFDEVEKAHPDIFN  | VLL    | 638 |
| NTDB id 297 STER RS00545 WP 011680614.1   | TGVGKTELAKALAE  | VL   | FDD   | ES    | ALIRFDMSEYMEKFAA | SRLN   | GAPPGYVGYDE | EGGELTEKVR | NKPYSV    | LLFDETEKAHPDIFN | VLL              | 641    |     |
| NTDB id 329 STU RS10020 WP 011225298.1    | TGVGKTELAKALAE  | VL   | FDD   | ES    | ALIRFDMSEYMEKFAA | SRLN   | GAPPGYVGYDE | EGGELTEKVR | NKPYSV    | LLFDETEKAHPDIFN | VLL              | 641    |     |
| consensus                                 | !!!!!!!!!!      | ***! | * * * | * * * | * * *            | *****! | *****!      | *****!     | *****!    | *****!          | *****!           | *****! |     |

logo

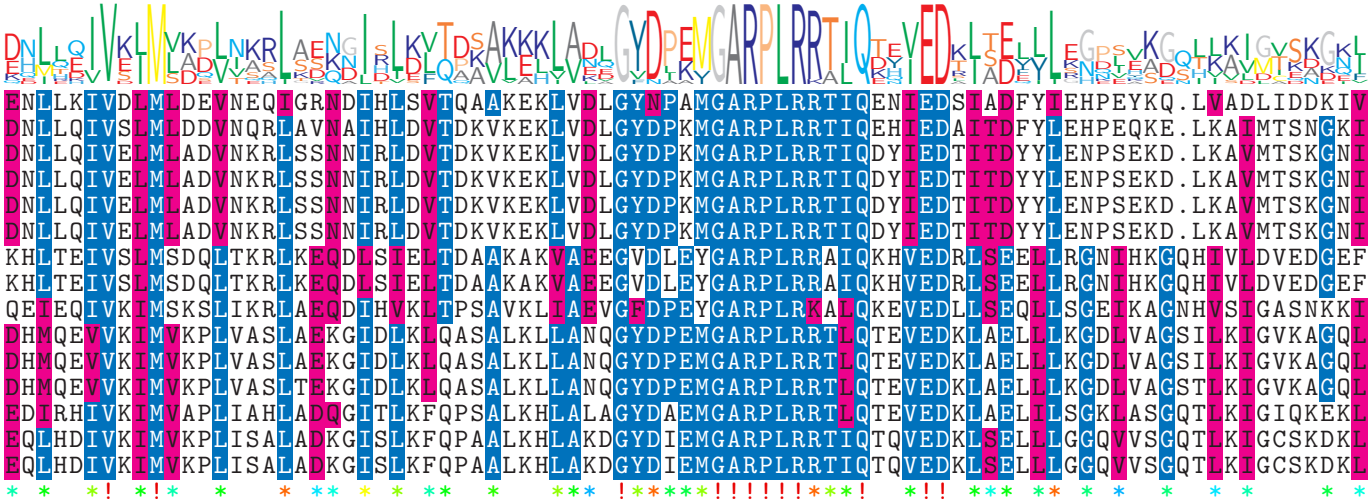
|           |       |       |         |    |             |
|-----------|-------|-------|---------|----|-------------|
| NTDB id   | 601   | KW2   | RS02615 | WP | 021036805.1 |
| NTDB id   | 378   | SMU   | RS02690 | WP | 002263569.1 |
| NTDB id   | 241   | SP    | RS04015 | WP | 000882523.1 |
| NTDB id   | 281   | KZH43 | RS03550 | WP | 000882517.1 |
| NTDB id   | 245   | SPD   | RS03860 | WP | 000882517.1 |
| NTDB id   | 243   | SPR   | RS03635 | WP | 000882517.1 |
| NTDB id   | 36309 | C663  | RS00580 | WP | 014475592.1 |
| NTDB id   | 85    | BSU   | 00860   | NP | 387967.1    |
| NTDB id   | 610   | V4T04 | RS10165 | WP | 012897346.1 |
| NTDB id   | 290   | KZH43 | RS10025 | WP | 001109677.1 |
| NTDB id   | 289   | SPD   | RS10700 | WP | 001109677.1 |
| NTDB id   | 287   | SP    | RS11210 | WP | 001109712.1 |
| NTDB id   | 377   | SMU   | RS09275 | WP | 002262344.1 |
| NTDB id   | 297   | STER  | RS00545 | WP | 011680614.1 |
| NTDB id   | 329   | STU   | RS10020 | WP | 011225298.1 |
| consensus |       |       |         |    |             |



645  
652  
651  
651  
651  
651  
716  
716  
725  
720  
720  
720  
723  
726  
726

logo

|           |       |       |         |    |             |
|-----------|-------|-------|---------|----|-------------|
| NTDB id   | 601   | KW2   | RS02615 | WP | 021036805.1 |
| NTDB id   | 378   | SMU   | RS02690 | WP | 002263569.1 |
| NTDB id   | 241   | SP    | RS04015 | WP | 000882523.1 |
| NTDB id   | 281   | KZH43 | RS03550 | WP | 000882517.1 |
| NTDB id   | 245   | SPD   | RS03860 | WP | 000882517.1 |
| NTDB id   | 243   | SPR   | RS03635 | WP | 000882517.1 |
| NTDB id   | 36309 | C663  | RS00580 | WP | 014475592.1 |
| NTDB id   | 85    | BSU   | 00860   | NP | 387967.1    |
| NTDB id   | 610   | V4T04 | RS10165 | WP | 012897346.1 |
| NTDB id   | 290   | KZH43 | RS10025 | WP | 001109677.1 |
| NTDB id   | 289   | SPD   | RS10700 | WP | 001109677.1 |
| NTDB id   | 287   | SP    | RS11210 | WP | 001109712.1 |
| NTDB id   | 377   | SMU   | RS09275 | WP | 002262344.1 |
| NTDB id   | 297   | STER  | RS00545 | WP | 011680614.1 |
| NTDB id   | 329   | STU   | RS10020 | WP | 011225298.1 |
| consensus |       |       |         |    |             |



729  
736  
735  
735  
735  
735  
801  
801  
810  
805  
805  
805  
808  
811  
811

logo

|                                           |                     |     |
|-------------------------------------------|---------------------|-----|
| NTDB id 601 KW2 RS02615 WP 021036805.1    | ISNQTQETAETTDEEVPAE | 748 |
| NTDB id 378 SMU RS02690 WP 002263569.1    | VIKASNK.VETVTKATSD. | 753 |
| NTDB id 241 SP RS04015 WP 000882523.1     | QIKSAKK.AEVKSSEKEK. | 752 |
| NTDB id 281 KZH43 RS03550 WP 000882517.1  | QIKSAKK.AEVKSSEKEK. | 752 |
| NTDB id 245 SPD RS03860 WP 000882517.1    | QIKSAKK.AEVKSSEKEK. | 752 |
| NTDB id 243 SPR RS03635 WP 000882517.1    | QIKSAKK.AEVKSSEKEK. | 752 |
| NTDB id 36309 C663 RS00580 WP 014475592.1 | VVKTTAKTN.....      | 810 |
| NTDB id 85 BSU 00860 NP 387967.1          | VVKTTAKTN.....      | 810 |
| NTDB id 610 V4T04 RS10165 WP 012897346.1  | KIAQIV.....         | 816 |
| NTDB id 290 KZH43 RS10025 WP 001109677.1  | KFDIA.....          | 810 |
| NTDB id 289 SPD RS10700 WP 001109677.1    | KFDIA.....          | 810 |
| NTDB id 287 SP RS11210 WP 001109712.1     | KFDIA.....          | 810 |
| NTDB id 377 SMU RS09275 WP 002262344.1    | KFDIV.....          | 813 |
| NTDB id 297 STER RS00545 WP 011680614.1   | TFTVV.....          | 816 |
| NTDB id 329 STU RS10020 WP 011225298.1    | TFTVV.....          | 816 |
| consensus                                 |                     |     |



-  non conserved
-  similar
-  ≥ 50% conserved