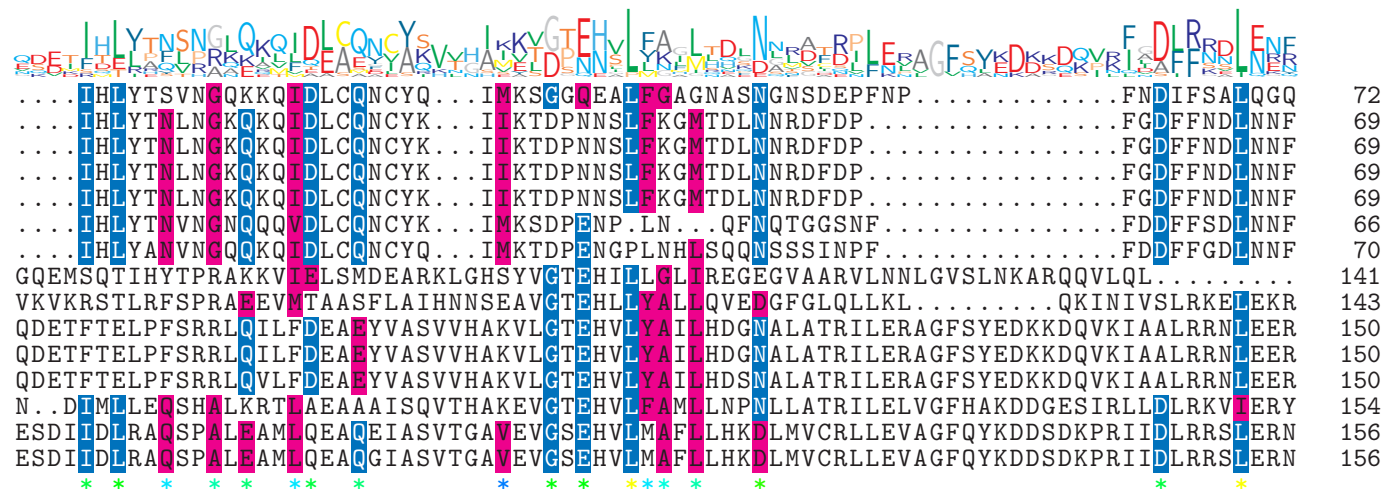
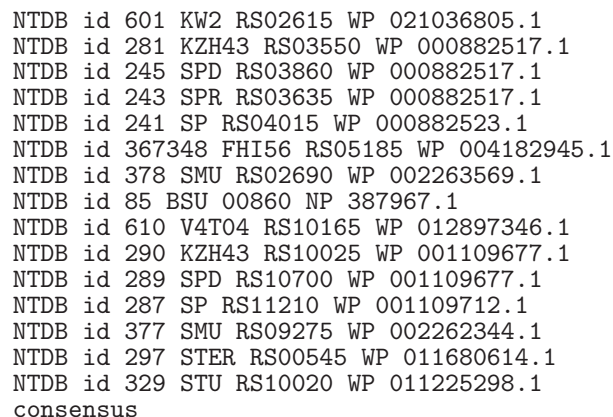


```

NTDB id 601 KW2 RS02615 WP 021036805.1
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 241 SP RS04015 WP 000882523.1
NTDB id 367348 FHI56 RS05185 WP 004182945.1
NTDB id 378 SMU RS02690 WP 002263569.1
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

```



logo

NTDB id 601 KW2 RS02615 WP 021036805.1	.DFNGAASN.....QTPPTQTGCR.....GPRGPNPRAKQPKGMLLEFGINITESARRGEIDPVIGRDEEIKR	135
NTDB id 281 KZH43 RS03550 WP 000882517.1	RPSSN..TP.....PIPTPTQSGGGYGGNGGY.GSQNRGSAQTTPPSQEKGLLEFGINVTETIARRGIDPVIIGRDEEIR	141
NTDB id 245 SPD RS03860 WP 000882517.1	RPSSN..TP.....PIPTPTQSGGGYGGNGGY.GSQNRGSAQTTPPSQEKGLLEFGINVTETIARRGIDPVIIGRDEEIR	141
NTDB id 243 SPR RS03635 WP 000882517.1	RPSSN..TP.....PIPTPTQSGGGYGGNGGY.GSQNRGSAQTTPPSQEKGLLEFGINVTETIARRGIDPVIIGRDEEIR	141
NTDB id 241 SP RS04015 WP 000882523.1	RPSSN..TP.....PIPTPTQSGGGYGGNGGY.GSQNRGSAQTTPPSQEKGLLEFGINVTETIARRGIDPVIIGRDEEIR	141
NTDB id 367348 FHI56 RS05185 WP 004182945.1	RSS.NGDLP.....NTPPTQEGGNQGGNGNTQGPRGGPRQQAPQQPQGLLEFGINITDIARRGIDPVIIGRDEEIR	140
NTDB id 378 SMU RS02690 WP 002263569.1	RAFNNQDLP.....NTPPTQAGGGNGNGGNNR...RPGGPQQQASQKPNGLLEFGINLTDIARKGEIDPVIIGRDEEITR	142
NTDB id 85 BSU 00860 NP 387967.1	LGSNET.....GSSAAGTNSNANTPTLDSLARDLTAIAKEDSLDPVIGRSKEIQR	191
NTDB id 610 V4T04 RS10165 WP 012897346.1	TGLKVPESKKAVTPMSKRKMAKG.....VAENSTPTLDSVSSDLTEEARLGKLDPMIGREAEIDR	204
NTDB id 290 KZH43 RS10025 WP 001109677.1	AGWTREDLKA.LRQRHRTV.ADKQ.....NSMANMMGMPQTPSGGLEDYTHDLTEQARSQKLEPVIIGRDKEISR	217
NTDB id 289 SPD RS10700 WP 001109677.1	AGWTREDLKA.LRQRHRTV.ADKQ.....NSMANMMGMPQTPSGGLEDYTHDLTEQARSQKLEPVIIGRDKEISR	217
NTDB id 287 SP RS11210 WP 001109712.1	AGWTREDLKA.LRQRHRTV.ADKQ.....NSMANMMGMPQTPSGGLEDYTHDLTEQARSQKLEPVIIGRDKEISR	217
NTDB id 377 SMU RS09275 WP 002262344.1	AGFSKEDIKA.IFEMRKPKKVNS.....SSFSDLMKPP.SVTGELADFTRDLTTELARQGRLEPVIIGREQEISR	221
NTDB id 297 STER RS00545 WP 011680614.1	AGLSKQDLKA.IHDLRKPKKSKAS.....ANFANMMQPPQSSTGELADYTKDLTALAESGNLDPVIIGRDEEISR	224
NTDB id 329 STU RS10020 WP 011225298.1	AGLSKQDLKA.IHDLRKPKKSKAS.....ANFANMMQPPQSSTGELADYTKDLTALAESGNLDPVIIGRDEEISR	224
consensus	* * * * *	

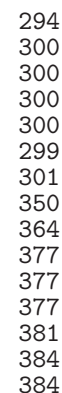
logo

NTDB id 601 KW2 RS02615 WP 021036805.1	VIEILNRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPQKLQNKEVIRLDVVSQGTGIRGQFEERMQKLMDEIRKR	215
NTDB id 281 KZH43 RS03550 WP 000882517.1	VIEILNRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRKR	221
NTDB id 245 SPD RS03860 WP 000882517.1	VIEILNRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRKR	221
NTDB id 243 SPR RS03635 WP 000882517.1	VIEILNRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRKR	221
NTDB id 241 SP RS04015 WP 000882523.1	VIEILNRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRKR	221
NTDB id 367348 FHI56 RS05185 WP 004182945.1	VIEILNRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGSVPQKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	220
NTDB id 378 SMU RS02690 WP 002263569.1	VIEILNRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPQKLHGKNVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	222
NTDB id 85 BSU 00860 NP 387967.1	VIEVLSRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	222
NTDB id 610 V4T04 RS10165 WP 012897346.1	LIHILSRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	271
NTDB id 290 KZH43 RS10025 WP 001109677.1	MIQILSRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	284
NTDB id 289 SPD RS10700 WP 001109677.1	MIQILSRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	297
NTDB id 287 SP RS11210 WP 001109712.1	MIQILSRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	297
NTDB id 377 SMU RS09275 WP 002262344.1	MIQILSRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	297
NTDB id 297 STER RS00545 WP 011680614.1	MIQILSRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	301
NTDB id 329 STU RS10020 WP 011225298.1	MIQILSRRTKNNPVLIGEPGVGKTAVVEGLAQKIVDGDVPHKLQGKQVIRLDVVSQGTGIRGQFEERMQKLMDEIRQR	304
consensus	* * * * *	

```

NTDB id 601 KW2 RS02615 WP 021036805.1
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 241 SP RS04015 WP 000882523.1
NTDB id 367348 FHI56 RS05185 WP 004182945.1
NTDB id 378 SMU RS02690 WP 002263569.1
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

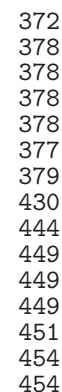
```



```

NTDB id 601 KW2 RS02615 WP 021036805.1
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 241 SP RS04015 WP 000882523.1
NTDB id 367348 FHI56 RS05185 WP 004182945.1
NTDB id 378 SMU RS02690 WP 002263569.1
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

```



```

NTDB id 601 KW2 RS02615 WP 021036805.1
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 241 SP RS04015 WP 000882523.1
NTDB id 367348 FHI56 RS05185 WP 004182945.1
NTDB id 378 SMU RS02690 WP 002263569.1
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

```



```

NTDB id 601 KW2 RS02615 WP 021036805.1
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 241 SP RS04015 WP 000882523.1
NTDB id 367348 FHI56 RS05185 WP 004182945.1
NTDB id 378 SMU RS02690 WP 002263569.1
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

```



logo

NTDB id 601 KW2 RS02615 WP 021036805.1	PGYVGVEEAGQLTERVRRNPYSLLILLDEIEKAHPDVMHMFLLQVLDGRLTDAQGRTVSFKDSLIIIMTSNAGTGK..VEAS	604
NTDB id 281 KZH43 RS03550 WP 000882517.1	PGYVGYDEAGQLTEKVRHNPYSLLILLDEVEKAHPDVMHMFLLQVLDGRLTDGQGRTVSFKDAIIIMTSNAGTGK..TEAS	610
NTDB id 245 SPD RS03860 WP 000882517.1	PGYVGYDEAGQLTEKVRHNPYSLLILLDEVEKAHPDVMHMFLLQVLDGRLTDGQGRTVSFKDAIIIMTSNAGTGK..TEAS	610
NTDB id 243 SPR RS03635 WP 000882517.1	PGYVGYDEAGQLTEKVRHNPYSLLILLDEVEKAHPDVMHMFLLQVLDGRLTDGQGRTVSFKDAIIIMTSNAGTGK..TEAS	610
NTDB id 241 SP RS04015 WP 000882523.1	PGYVGYDEAGQLTEKVRHNPYSLLILLDEVEKAHPDVMHMFLLQVLDGRLTDGQGRTVSFKDAIIIMTSNAGTGK..TEAS	610
NTDB id 367348 FHI56 RS05185 WP 004182945.1	PGYVGYDEAGQLTEKVRNPYSLLILLDEVEKAHPDVLHMFLLQVLDGRLTDGQGRTVSFKDTIIIMTSNAGTGK..VEAS	609
NTDB id 378 SMU RS02690 WP 002263569.1	PGYVGVEEAGQLTEKVRNPYSLLILLDEVEKAHPDVMHMFLLQVLDGRLTDGQGRTVSFKDTIIIMTSNAGTGK..SEAN	611
NTDB id 85 BSU 00860 NP 387967.1	PGYVGYDEGGQLTEKVRKPYSVVLLDEIEKAHPDVFNILLQVLDGRLTDSKGRVDFRNTILIMTSNVGASELKRNY	670
NTDB id 610 V4T04 RS10165 WP 012897346.1	PGYVGYDEGGQLTERVRNKPYSVLLDEVEKAHPDVFNIMLLQVLDGRLTDSKGRKVDFTNTIIIMTSNKGATALRDDKT	679
NTDB id 290 KZH43 RS10025 WP 001109677.1	PGYVGVEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDGRLTDSKGRKVDFTNTIIIMTSNKGATALRDDKT	674
NTDB id 289 SPD RS10700 WP 001109677.1	PGYVGVEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDGRLTDSKGRKVDFTNTIIIMTSNKGATALRDDKT	674
NTDB id 287 SP RS11210 WP 001109712.1	PGYVGVEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDGRLTDSKGRKVDFTNTIIIMTSNKGATALRDDKT	674
NTDB id 377 SMU RS09275 WP 002262344.1	PGYVGVEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNILLQVLDGRLTDSRGRKVDFTNTIIIMTSNKGATALRDDKT	677
NTDB id 297 STER RS00545 WP 011680614.1	PGYVGYDEGGELTEKVRNKPYSVLLFDEIEKAHPDIFNILLQVLDGRLTDSRGRKVDFTNTIIIMTSNKGATALRDDKT	680
NTDB id 329 STU RS10020 WP 011225298.1	PGYVGYDEGGELTEKVRNKPYSVLLFDEIEKAHPDIFNVLLQVLDGRLTDSRGRKVDFTNTIIIMTSNKGATALRDDKT	680
consensus	!!!!!!*!*!*!*!!!!*!! !!!*!*!*!*!!!!!!* * !!!*!*!! *!! !!! !* **!!!!!! ! *	

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	VGFGAAREG.....RTKSVLGLGDFFSPEFMNRFDGIIIEFSALSKENLLKIVDLMIDEVNEQIGRNDIHLSTVQAAKEK	679
NTDB id 281 KZH43 RS03550 WP 000882517.1	VGFGAAREG.....RTNSVLGELGNFFSPEFMNRFDGIIIEFKALSKDNLQIVELMLADVKNRLLSSNNIRLDVTDKVKEK	685
NTDB id 245 SPD RS03860 WP 000882517.1	VGFGAAREG.....RTNSVLGELGNFFSPEFMNRFDGIIIEFKALSKDNLQIVELMLADVKNRLLSSNNIRLDVTDKVKEK	685
NTDB id 243 SPR RS03635 WP 000882517.1	VGFGAAREG.....RTNSVLGELGNFFSPEFMNRFDGIIIEFKALSKDNLQIVELMLADVKNRLLSSNNIRLDVTDKVKEK	685
NTDB id 241 SP RS04015 WP 000882523.1	VGFGAAREG.....RTNSVLGELGNFFSPEFMNRFDGIIIEFKALSKDNLQIVELMLADVKNRLLSSNNIRLDVTDKVKEK	685
NTDB id 367348 FHI56 RS05185 WP 004182945.1	VGFGAAREN.....RTNSVLNQLGDFFSPEFMNRFDGIIIEFSALSKENLLTIVDLMLDNVNQRLANNNGIHLSTVTEKVKEK	684
NTDB id 378 SMU RS02690 WP 002263569.1	VGFGASREG.....RTNSVLGELGNFFSPEFMNRFDGIIIEFQALSKDNLQIVSLMLDDVNQRLAVNAIHLDVTDKVKEK	686
NTDB id 85 BSU 00860 NP 387967.1	VGFNVDDETQNHKDMKDKVMGELKRAFYPEFINRIDEIIVFHSLEKKHLTEIVSLMSDQLTKRLKEQDLSIELTDAAKAK	750
NTDB id 610 V4T04 RS10165 WP 012897346.1	VGFGAKNITADYSAMKSRILEELKRHYRPEFLNRIDENIVFHSLESQETEQIVKIMSKSLIKRLAEQDIHVKLTPSAVKL	759
NTDB id 290 KZH43 RS10025 WP 001109677.1	VGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVVFHSLSSDHMQEVVKIMVKPLVASLAKEGIDLKLQASALKL	754
NTDB id 289 SPD RS10700 WP 001109677.1	VGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVVFHSLSSDHMQEVVKIMVKPLVASLAKEGIDLKLQASALKL	754
NTDB id 287 SP RS11210 WP 001109712.1	VGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVVFHSLSSDHMQEVVKIMVKPLVASLTEKGIDLKLQASALKL	754
NTDB id 377 SMU RS09275 WP 002262344.1	VGFGAKSFSQDYKAMESRIILEELKKVYRPEFINRIDEKVVVFHNLGQEDIRHIVKIMVAPLIAHLADQGITLKFQPSALKH	757
NTDB id 297 STER RS00545 WP 011680614.1	VGFGAQTISHNHQAMQARIMEELKKSYPPEFINRIDEKVVVFHSLSEEEQLHDIVKIMVKPLISALADKGISLKFQPAALKH	760
NTDB id 329 STU RS10020 WP 011225298.1	VGFGAQTISHNHQAMQARIMEELKKSYPPEFINRIDEKVVVFHSLSEEEQLHDIVKIMVKPLISALADKGISLKFQPAALKH	760
consensus	!!!!** ** *! * !!!*!! ! * ! !* *** *! *!* * ** * * * * *	

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	LVDLGYNPAMGARPLRRTIQENIEDSTADFYIEHPEYKQL.VADLIDDKIVISNQTQETAETTDE.EVPAE..	748
NTDB id 281 KZH43 RS03550 WP 000882517.1	LVDLGYDPKMGARPLRRTIQDYIEDTITDYYLENPSEKDL.KAVMTSKGNIQIKSAKKAEVKSSEKEK.....	752
NTDB id 245 SPD RS03860 WP 000882517.1	LVDLGYDPKMGARPLRRTIQDYIEDTITDYYLENPSEKDL.KAVMTSKGNIQIKSAKKAEVKSSEKEK.....	752
NTDB id 243 SPR RS03635 WP 000882517.1	LVDLGYDPKMGARPLRRTIQDYIEDTITDYYLENPSEKDL.KAVMTSKGNIQIKSAKKAEVKSSEKEK.....	752
NTDB id 241 SP RS04015 WP 000882523.1	LVDLGYDPKMGARPLRRTIQDYIEDTITDYYLENPSEKDL.KAVMTSKGNIQIKSAKKAEVKSSEKEK.....	752
NTDB id 367348 FHI56 RS05185 WP 004182945.1	LVDLGYDPKMGARPLRRTIQDHIEDAITDFYLENPNEKDL.KAVMTSKGHIITIKSAKKSEKTAQKTETAKETD	756
NTDB id 378 SMU RS02690 WP 002263569.1	LVDLGYDPKMGARPLRRTIQEHIEDAITDFYLEHPEQKEL.KAIMTSNGKIVIKASNKVETVTKATSD.....	753
NTDB id 85 BSU 00860 NP 387967.1	VAEEGVLDLEYGARPLRRAIQKHVEDRLSEELLRGNIHKGQHIVLDVEDGEFVVKTTAKTN.....	810
NTDB id 610 V4T04 RS10165 WP 012897346.1	IAEVGFDPPEYGARPLRKALQKEVEDLLSEQLLSGEIKAGNHVSIGASNKKIKIAQIV.....	816
NTDB id 290 KZH43 RS10025 WP 001109677.1	LANQGYDPEMGARPLRRTLQTEVEDKLAELLKGDLVAGSILKIGVKAGQLKFDIA.....	810
NTDB id 289 SPD RS10700 WP 001109677.1	LANQGYDPEMGARPLRRTLQTEVEDKLAELLKGDLVAGSILKIGVKAGQLKFDIA.....	810
NTDB id 287 SP RS11210 WP 001109712.1	LANQGYDPEMGARPLRRTLQTEVEDKLAELLKGDLVAGSTLKIGVKAGQLKFDIA.....	810
NTDB id 377 SMU RS09275 WP 002262344.1	LALAGYDAEMGARPLRRTLQTEVEDKLAELILSGKLASGQTLKIGIQKEKLKFDIV.....	813
NTDB id 297 STER RS00545 WP 011680614.1	LAKDGYDIEMGARPLRRTIQTQVEDKLSELLLGGQVVSGQTLKIGCSKDKLTFTVV.....	816
NTDB id 329 STU RS10020 WP 011225298.1	LAKDGYDIEMGARPLRRTIQTQVEDKLSELLLGGQVVSGQTLKIGCSKDKLTFTVV.....	816
consensus	* * !*** *!!!!!!***! *!! *** *	

- non conserved
- similar
- ≥ 50% conserved