```
logo
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  MKKNRVFATAGLVLLAAGVLAACSSSKSSDSSAPKAYGYVYTADPETLDYLISSKNSTTVVTSNGIDGLFTNDNYGNLTP   80
NTDB id 475 HSISS4 RS07005 WP 021143809.1     MKKSKWLALAGVALLSVGALAACSSKSS...TSGTTYGYVYNSDPESLDYITSNTGPTKTAVTNGVDGLMEADKYGNLVP   77
NTDB id 324 STU RS16140 WP 011226306.1        MKKSKWLALAGVALLGVGVLAACSSKSN...TSGTTYGYVYSSDPETLDYITSNTGPTKSVVTNGVDGLMEADKYGNLVP   77
NTDB id 292 STER RS06940 WP 011681419.1       MKKSKWLALAGVALLGVGVLAACSSKSN...TSGTTYGYVYSSDPETLDYITSNTGPTKSVVTNGVDGLMEADKYGNLVP   77
consensus                                     !!!****!*!!**!!**!*!!!!!!**    *****!!!!!**!!!*!!!**!****!*****!!*!!!***!*!!!!*!

logo
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  AVAEDWEVSKDGLTYTYKIRKGVKWFTSDGEEYAEVTAKDFVNGLKHAADKKSEAMYLAENSVKGLADYLSGTSTDFSTV  160
NTDB id 475 HSISS4 RS07005 WP 021143809.1     SVAEDWSVSQDGLTYTYKIRKGVKWYTSDGEEYADVTAKDFVTGLKHAADGKAGALYLVQDSIAGLSDYLSGANKDFSNV  157
NTDB id 324 STU RS16140 WP 011226306.1        SVAEDWSVSKDGLTYTYKIRKGIKWYTSEGEEYANVTAKDFVTGLKHAADSKAGGIYLVQDSIAGLSDYLSGTNKDFSNV  157
NTDB id 292 STER RS06940 WP 011681419.1       SVAEDWSVSKDGLTYTYKIRKGIKWYTSEGEEYANVTAKDFVTGLKHAADSKAGGIYLVQDSIAGLSDYLSGTNKDFSNV  157
consensus                                     *!!!!!*!!*!!!!!!!!!!!!!*!!*!!*!!!!!*!!!!!!!*!!!!!!!*!****!!***!**!!*!!!!!***!!!*!

logo
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  GVKAVDDYTLQYTLNQPEPRWNSKLTYSIFWPLNEEFETSKGSDFAKPTDPTSLLYNGPFLLKGLTAKSSVEFVKNEQYW  240
NTDB id 475 HSISS4 RS07005 WP 021143809.1     GVKAIDDYTLQYTLKKPEPYWNSKTTYGLLSPVNEDFLKNKGKDFGKSTDPTSILYNGPFLLKSLTAKSSIELTKNENYW  237
NTDB id 324 STU RS16140 WP 011226306.1        GVKAIDEYTLQYTLKQPEPYWNSKTTYSLLFPVNEDFLKNKGKDFGKSTDPTSILYNGPFLLKSLTAKSSIELVKNEHYW  237
NTDB id 292 STER RS06940 WP 011681419.1       GVKAIDDYTLQYTLKQPEPYWNSKTTYSLLFPVNEDFLKNKGKDFGKSTDPTSILYNGPFLLKSLTAKSSIELVKNEHYW  237
consensus                                     !!!!*!*!!!!!!!**!!!*!!!!*!!****!*!!*!***!!*!!*!*!!!!!*!!!!!!!!!*!!!!!!*!**!!!*!!

logo
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  DKENVHLDTINLAYYDGSDQESLERNFTSGAYSYARLYPTSSNYSKVAEEYKDNIYYTQSGSGIAGLGVNIDRQSYNYTS  320
NTDB id 475 HSISS4 RS07005 WP 021143809.1     DKKNVHFDAIKLSYYDGSDQEALERGFTDGAYSLARVYPTSSNYSSVEKKYKDNIYYTAPGASTSAIGVNIDRQSYKFSA  317
NTDB id 324 STU RS16140 WP 011226306.1        DKKNVHFDAIKFSYYDGSDQDALVRGFTDGAYNFARVFPTSSNYASVEKKYKDNIYYTAPGASTSAIGINLDRQSYKYTA  317
NTDB id 292 STER RS06940 WP 011681419.1       DKKNVHFDAIKFSYYDGSDQDALVRGFTDGAYNFARVFPTSSNYASVEKKYKDNIFYTAPGASTSAIGINIDRQSYKYTA  317
consensus                                     !!*!!!*!*!* *!!!!!!!**! !*!!*!!! *!!**!!!!!! *!***!!!!!*!!**!******!*!*!!!!!****

logo
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  KTTDSEKVATKKALLNKDFRQALNFALDRSAYSAQINGKDGAALAVRNLFVKPDFVSAGEKTFGDLVAAQLPAYGDEWKG  400
NTDB id 475 HSISS4 RS07005 WP 021143809.1     KKTDAEKTSTKKALLNKDFRQSINFAIDRTAYQSQMNGKDGAALALRNLFVPSDFVSAGDKTFGDLVTEKMSSYGDEWSG  397
NTDB id 324 STU RS16140 WP 011226306.1        KKTDSEKSSTKKALLNKDFRQAINFAIDRKAYQSQINGKDGATLAVRNLFVPSDFVSAGDKTFGDLVTEKMSSYGDEWSG  397
NTDB id 292 STER RS06940 WP 011681419.1       KKTDSEKSSTKKALLNKDFRQAINFAIDRKAYQSQINGKDGATLGVRNLFVPSDFVSAGDKTFGDLVTEKMSSYGDEWSG  397
consensus                                     !*!!*!!**!!!!!!!!!!!!!**!!!*!!*!!**!*!!!!!! !**!!!!!**!!!!!!*!!!!!!*****!!!!!*!

logo
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  VNLADGQDGLFNADKAKAEFAKAKKALEADGVQFPIHLDVPVDQASKNYISRIQSFKQSVETVLGVENVVVDIQQMTSDE  480
NTDB id 475 HSISS4 RS07005 WP 021143809.1     VNFTDGQDGLYNAEKAKTEFAKAKETLQADGVQFPIHLDLPVDQSSKINVAQAQSLKQTIEQSLGSDNVVIDVNQLSSDD  477
NTDB id 324 STU RS16140 WP 011226306.1        VNFADSQDGLYNAEKAKTEFAKAKDALQADGVQFPIHLDLPVDQSSKLNVAQAQSLKQTIEKSLGSENVVIDINQLSSDD  477
NTDB id 292 STER RS06940 WP 011681419.1       VNLADSQDGLYNAEKAKTEFAKAKDALQADGVQFPIHLDLPVNQSSKLNVAQVQSLKQTIEKSLGSENVVIDINQLSSDD  477
consensus                                     !! *! !!!!*!!*!!!*!!!!!!**!*!!!!!!!!!!!!*!!*!*!!******!!*!!**!**!!**!!!*!**!**!!*
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  FLNITYYAANASSEDWDVSGGVSWGPDYQDPSTYLDILKTTSSETTKTYLGFDNPNSPSVVQVGLKEYDKLVDEAARETS   560
NTDB id 475 HSISS4 RS07005 WP 021143809.1     IQNATLNAANAAAEDWDISNGVIWGPDYQDPSTYLDIFKTTSSENTKTFMGYDDPNNAAAAQVGLKDYDALLDSAASETT   557
NTDB id 324 STU RS16140 WP 011226306.1        LENVTLNAANAAAEDWDISNSVAWAPDYQDPSTYLDIFKTTSSENTKAFMGYDDPNNAAAAQVGLKDYDALLNSAASETS   557
NTDB id 292 STER RS06940 WP 011681419.1       LENATLNAANAAAEDWDISNSVGWAPDYQDPSTYLDIFKTTSSENTKAFMGYDDPNNAAAAQVGLKDYDALLNSAASETS   557
consensus                                     **!*!**!!!!**!!!!*!* !*!*!!!!!!!!!!!!*!!!!!!*!! **!*!*!!*****!!!!!*!!*!* *!!*!!*

logo
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  DLNVRYEKYAAAQAWLTDSSLFIPAMASSGAAPVLSRIVPFTGASAQTGSKGS.DVYFKYLKLQDKVVTKEEYEKAREKW   639
NTDB id 475 HSISS4 RS07005 WP 021143809.1     DLNARYDRYAQAQAWLEDSSLVIPLTVGNGAAPVISRLTPFTGASMQVGDKNS.SDYFKYVKPQEKVVTKKEYEQSREKW   636
NTDB id 324 STU RS16140 WP 011226306.1        DLNVRYDRYAQAQAWLEDSSLVIPLTVGNGAAPAISRLTPFTGASLQVGDKNSSNDYIKYVKPQEKVVTKKEYEQSREKW   637
NTDB id 292 STER RS06940 WP 011681419.1       DLNVRYDRYAQAQAWLEDSSLVIPLTVGNGAAPVISRLTPFTGASLQVGDKNSSNDYIKYVKPQEKVVTKKEYEQSREKW   637
consensus                                     !!!*!!**!!*!!!!!*!!!!*!!*****!!!!**!!**!!!!!!*!*!*!*!***! !!*!*!*!!!!!*!!!!**!!!!

logo
NTDB id 1126282 E0F31 RS09145 WP 050081880.1  LKEKAESNEKAQKELASHVK   659
NTDB id 475 HSISS4 RS07005 WP 021143809.1     LKEKKASNEKAQKDLEKHVK   656
NTDB id 324 STU RS16140 WP 011226306.1        LKEKKESNEKAQKDLEKHVK   657
NTDB id 292 STER RS06940 WP 011681419.1       LKEKKESNEKAQKDLEKHVK   657
consensus                                     !!!!**!!!!!!!!*!**!!!
```

X non conserved

X similar

X $\geq$ 50% conserved