

```

NTDB id 1253 GC085 RS04835 WP 011215094.1
NTDB id 1010 ACIAD RS15195 WP 004923715.1
NTDB id 110459 ACAK36 RS10500 WP 002014066.1
NTDB id 1054 ABD1 RS15870 WP 002014066.1
NTDB id 1084 FDQ49 RS11070 WP 004711654.1
consensus

```

MLRLYRKPNKGLMGVDISSTSVKLELSVKNKYWVESYALMPLPENSVEKNILNPEAVAEALERAMNLANPQTTHAAI
K L K P K H R S T Y I I S A V I Y T G S G E D C R G I G R E E T L A S A L E G N M I K D V D V D C T K K L Y E R L K F T A H V I L

MLKLLKPKHRSILGIDISSAVKILEISGSGEDICVEGYGREELPASALEGNMIKDVVANCKKLVERLKFTSKNVAL 80
MLRLYRPPKKGVLGVDISSTSVKVLELSVKNNQYRVESYGLVPLENSVVEKNILNPEAVADALTRSLINLANPQAINAAI 80
MLRLYRKPNKGLMGVDISSTSVKLELSVKNKYWVESYALMPLPENSVEKNILNPEAVAEALERAMNLANPQTTTHAAI 80
MLRLYRKPNKGLMGVDISSTSVKLELSVKNKYWVESYALMPLPENSVEKNILNPEAVAEALERAMNLANPQTTTHAAI 80
MLRLYRKPNKGLMGVDISSTSVKLELSVKNKYWVESYALMPLPENSVEKNILNPEAVAEALERAMNLANPQTTTHAAI 80

*****!*****!*****!*****!*****!*****!*****!*****!*****!*****!

```
NTDB id 1253 GC085 RS04835 WP 011215094.1
NTDB id 1010 ACIAD RS15195 WP 004923715.1
NTDB id 110459 ACAK36 RS10500 WP 002014066.1
NTDB id 1054 ABD1 RS15870 WP 002014066.1
NTDB id 1084 FDQ49 RS11070 WP 004711654.1
consensus
```

AVPTS¹TV²IH³KT⁴IE⁵MD⁶AD⁷MS⁸DD⁹ER¹⁰EV¹¹QI¹²RV¹³DA¹⁴EQ¹⁵YI¹⁶PF¹⁷PL¹⁸DE¹⁹VS²⁰LD²¹FE²²VL²³PD²⁴RL²⁵AN²⁶PN²⁷RV²⁸NV²⁹LV³⁰AT³¹RT³²EN³³VE³⁴TR³⁵VE³⁶LE³⁷L

DA¹VS²YV³QI⁴NE⁵GL⁶TL⁷ME⁸LW⁹TE¹⁰DR¹¹YI¹²IN¹³IN¹⁴MS¹⁵EP¹⁶AK¹⁷SS¹⁸SS¹⁹LD²⁰SV²¹LA²²AT²³RT²⁴EN²⁵VD²⁶TR²⁷IE²⁸VE²⁹LE³⁰L

AVPDS¹AV²ISK³V⁴VQ⁵INE⁶GL⁷TD⁸LE⁹ME¹⁰EEL¹¹V¹²VE¹³AD¹⁴CK¹⁵YI¹⁶PY¹⁷PI¹⁸DE¹⁹IN²⁰LD²¹FE²²VL²³GHS²⁴AK²⁵SS²⁶SS²⁷LD²⁸VL²⁹IV³⁰AS³¹RA³²EN³³VN³⁴TR³⁵VE³⁶AA³⁷HR³⁸

AVPTS¹MS²V³HK⁴TI⁵EM⁶DAD⁷MT⁸DD⁹ER¹⁰EV¹¹QIR¹²MD¹³AE¹⁴RY¹⁵IP¹⁶PL¹⁷DE¹⁸VS¹⁹LD²⁰FE²¹VM²²SE²³PL²⁴AN²⁵PN²⁶RV²⁷SV²⁸LV²⁹LA³⁰AT³¹RT³²EN³³VD³⁴TR³⁵IE³⁶VE³⁷LE³⁸L

AVPTST¹VI²HK³TI⁴EM⁵DAD⁶MS⁷DD⁸ER⁹EV¹⁰QIR¹¹VD¹²AE¹³QY¹⁴IP¹⁵PL¹⁶DE¹⁷VS¹⁸LD¹⁹FE²⁰VL²¹PD²²RL²³AN²⁴PN²⁵RV²⁶NV²⁷LV²⁸AT²⁹RT³⁰EN³¹VE³²TR³³VE³⁴VE³⁵LE³⁶L

AVPTST¹VI²HK³TI⁴EM⁵DAD⁶MS⁷DD⁸ER⁹EV¹⁰QIR¹¹VD¹²AE¹³QY¹⁴IP¹⁵PL¹⁶DE¹⁷VS¹⁸LD¹⁹FE²⁰VL²¹PD²²RL²³AN²⁴PN²⁵RV²⁶NV²⁷LV²⁸AT²⁹RT³⁰EN³¹VE³²TR³³VE³⁴VE³⁵LE³⁶L

AVPTST¹VI²HK³TI⁴EM⁵DAD⁶MS⁷DD⁸ER⁹EV¹⁰QIR¹¹VD¹²AE¹³QY¹⁴IP¹⁵PL¹⁶DE¹⁷VS¹⁸LD¹⁹FE²⁰VL²¹PD²²RL²³AN²⁴PN²⁵RV²⁶NV²⁷LV²⁸AT²⁹RT³⁰EN³¹VE³²TR³³VE³⁴VE³⁵LE³⁶L

```
NTDB id 1253 GCO85 RS04835 WP 011215094.1
NTDB id 1010 ACIAD RS15195 WP 004923715.1
NTDB id 110459 ACAK36 RS10500 WP 002014066.1
NTDB id 1054 ABD1 RS15870 WP 002014066.1
NTDB id 1084 FDQ49 RS11070 WP 004711654.1
consensus
```

[illegible]

```
NTDB id 1253 GCO85 RS04835 WP 011215094.1
NTDB id 1010 ACIAD RS15195 WP 004923715.1
NTDB id 110459 ACAK36 RS10500 WP 002014066.1
NTDB id 1054 ABD1 RS15870 WP 002014066.1
NTDB id 1084 FDQ49 RS11070 WP 004711654.1
consensus
```

[illegible]

```
NTDB id 1253 GC085 RS04835 WP 011215094.1
NTDB id 1010 ACIAD RS15195 WP 004923715.1
NTDB id 110459 ACAK36 RS10500 WP 002014066.1
NTDB id 1054 ABD1 RS15870 WP 002014066.1
NTDB id 1084 FDQ49 RS11070 WP 004711654.1
consensus
```

FLQMGFSPQVDVQKIENDASSLMVACGLALRSFD

L S H M S F G K K V N I D V I N S D A P T L M V A C G L A L R H V E . 354
FLQMEFSPQVDIKKVENDAASLMVACGLALRSFDE 353
FLQMGFSPQVDVQKIENDASSLMVACGLALRSFD . 352
FLQMGFSPQVDVQKIENDASSLMVACGLALRSFD . 352
FLQMGFSPQVDVQKIENDASSLMVACGLALRSFD . 352

!?!**!*~*****!!?!!!!!!!*

 non conserved
 similar
 $\geq 50\%$ conserved