

|                 |               |                |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |      |     |   |   |    |    |
|-----------------|---------------|----------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|------|-----|---|---|----|----|
| NTDB id 1197    | PSJM300 03940 | AFN76866.1     | .....MKAQ | M | Q | K | G | F | T | L | I | E | L | M | I | V | V | A | I | I | G | I | L | A | A | I | L | P | A | Y | Q | D | Y | T | V | R | S | N | A | A | A | L | A | E | I | T | P | G | K | I | G | F | E | Q | . | A | I | N | E | G | K | T | P | S | L | T | S | D | .. | 71 |    |    |    |      |     |   |   |    |    |
| NTDB id 1192    | PAKAF RS23870 | WP 024947914.1 | .....MKAQ | K | G | F | T | L | I | E | L | M | I | V | V | A | I | I | G | I | L | A | A | I | A | I | P | Q | Y | Q | N | Y | V | A | R | S | E | G | A | S | A | L | A | S | V | N | P | L | K | T | T | V | E | E | . | A | I | S | R | G | W | S | V | K | S | G | T | G | T  | E  | D  | 71 |    |      |     |   |   |    |    |
| NTDB id 1354    | HI 0299       | AAC21963.1     | ..MKL     | T | T | L | Q | T | . | K | K | G | F | T | L | I | E | L | M | I | V | . | I | A | I | A | I | L | A | T | I | A | I | P | S | Y | Q | N | Y | T | K | K | A | A | V | S | E | L | L | Q | A | S | A | P | Y | K | A | D | V | E | L | C | V | Y | S | T | . | N | E  | T  | T  | S  | C  | ...  | T   | G | G | 75 |    |
| NTDB id 1365    | NTHI RS01955  | WP 011271973.1 | ..MKL     | T | T | Q | T | . | T | L | K | K | G | F | T | L | I | E | L | M | I | V | . | I | A | I | A | I | L | A | T | I | A | I | P | S | Y | Q | N | Y | T | K | K | A | A | V | S | E | L | L | Q | A | S | A | P | Y | K | A | D | V | E | L | C | V | Y | S | T | . | N  | E  | T  | T  | N  | C    | ... | T | G | G  | 75 |
| NTDB id 1119    | NGFG RS11465  | WP 017147169.1 | .....MNT  | L | K | G | F | T | L | I | E | L | M | I | V | . | I | A | I | G | I | L | A | A | V | A | L | P | A | Y | Q | D | Y | T | A | R | A | Q | V | S | E | A | I | L | L | A | E | G | Q | K | S | A | V | E | Y | . | I | N | H | G | K | W | P | E | N | N | T | S | A  | G  | V  | 73 |    |      |     |   |   |    |    |
| NTDB id 1191    | AKC28468.1    | 484..945( )    | .....MLK  | K | V | Q | K | G | F | T | L | I | E | L | M | I | V | . | I | A | I | G | I | L | A | A | I | L | P | A | Y | Q | D | Y | T | A | R | A | Q | A | T | E | G | F | K | A | T | A | G | L | Q | T | D | . | G | A | W | R | A | D | R | G | S | F | P | N | A | A | L  | V  | A  | G  | 74 |      |     |   |   |    |    |
| NTDB id 1424    | RS RS02795    | WP 011000517.1 | MKSMR     | H | L | N | K | R | . | V | Q | K | G | F | T | L | I | E | L | M | I | V | V | A | I | V | G | I | L | A | A | I | A | P | A | Y | Q | D | Y | T | V | R | A | R | V | T | E | G | L | S | L | A | A | Q | A | K | A | L | V | S | E | N | A | A | N | A | Q | S | D  | L  | S  | V  | G  | .... | 75  |   |   |    |    |
| NTDB id 1002    | ACIAD RS15100 | WP 004923779.1 | .....MNA  | Q | K | G | F | T | L | I | E | L | M | I | V | . | I | A | I | G | I | L | A | A | I | A | I | P | A | Y | T | D | Y | T | V | R | A | R | V | S | E | G | L | T | A | A | S | S | M | K | T | T | V | S | E | N | I | . | N | A | G | A | L | V | A | G | T | P | S  | T  | A  | G  | 72 |      |     |   |   |    |    |
| NTDB id 1122399 | EL239 RS05500 | WP 126338719.1 | .....MAI  | K | G | F | T | L | I | E | F | M | I | V | V | A | I | . | A | I | L | V | V | I | A | I | P | F | L | Q | T | Y | L | I | R | A | R | V | S | E | G | L | E | L | A | D | P | A | K | L | A | V | T | E | T | A | I | N | T | N | V | L | P | A | S | Q | A | T | G  | Y  | 71 |    |    |      |     |   |   |    |    |
| NTDB id 1258    | GC085 RS09745 | WP 014844212.1 | .....MR   | Q | K | G | F | T | L | I | E | L | M | I | V | V | A | I | I | G | I | L | A | A | I | A | I | P | A | Y | Q | D | Y | T | I | R | A | R | V | T | E | G | L | T | L | A | D | S | A | K | L | A | V | S | E | T | A | I |   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |      |     |   |   |    |    |

|                                              |                                                                                |     |
|----------------------------------------------|--------------------------------------------------------------------------------|-----|
| NTDB id 1197 PSJM300 03940 AFN76866.1        | ....EGYIGI..TDS.TSYCDVDLD....TAADGHI...ECTAKGNGAGKFDGKTTITLNR.....TADGEW       | 123 |
| NTDB id 1192 PAKAF RS23870 WP 024947914.1    | ATKKEVPLGV..AADANKLGTIALKP...DPADGTADITLTFTMGAGPKNKGKIIITLRT.....AADGLW        | 133 |
| NTDB id 1354 HI 0299 AAC21963.1              | K....NGI.....AADIKTAKGYVASV.....ITQSGGITVK.....GNGTLANMEYI....LQAKGNAAGVTW     | 127 |
| NTDB id 1365 NTHI RS01955 WP 011271973.1     | K....NGI.....AADITTAKGYKVS.....TTSNGAIVTK.....GDGTLANMEYI....LQATGNAATGVTW     | 127 |
| NTDB id 1119 NGFG RS11465 WP 017147169.1     | A....SPP.....TDIKGKYVKEVE.....VKNGVATATMLSSGVNNEIKGKLSL.....WGRRENGSVKW        | 126 |
| NTDB id 1191 AAC28468.1 484..945( )          | N....V.....IFDSANGLDGKYFAPG.GVTVPDTCAINIAFDAC.....ANAGKMTTITPTVIA.....ASGQISTW | 133 |
| NTDB id 1424 RS RS02795 WP 011000517.1       | S....S....VF...TP..TKNVANLTIAGTGTVPGQITVTYTTA....AGGGTLALVPTAAGTALPVSSAPSGPIW  | 136 |
| NTDB id 1002 ACIAD RS15100 WP 004923779.1    | S....SCVGVQEISASNA..TTNVAT..ATCGASSAGQIIVTMDTT...KAKGANITITPT.TY.....ASGAVTW   | 130 |
| NTDB id 1122399 EL239 RS05500 WP 126338719.1 | V....SP.....AA..TSYVNS..II..IDPGGVITITYTAT....AGGGTIIFMPTLIQ.....CNGDMTW       | 118 |
| NTDB id 1258 GC085 RS09745 WP 014844212.1    | V....SP.....AA..TPNVQS..IA..IGANGVITITYTAA....AGGGTIIMTPTLIQ.....ANGDVTW       | 118 |
| NTDB id 1274 LPP RS09530 WP 011214168.1      | V....SP.....AA..TPNVAS..IA..IGANGVITITYTAA....AGGGTIIVTPTLIQ.....ANGDVTW       | 118 |
| consensus                                    | * * * * *                                                                      |     |

| Accession       | Protein                      | Sequence                        | Position |
|-----------------|------------------------------|---------------------------------|----------|
| NTDB id 1197    | PSJM300 03940 AFN76866.1     | SCAST.....LDKYPKPKCS.....       | 139      |
| NTDB id 1192    | PAKAF RS23870 WP 024947914.1 | KCTSD.....QDEQFIPKGCSSK.....    | 150      |
| NTDB id 1354    | HI 0299 AAC21963.1           | TTTCKGT.....DASLFPAFNCGSVTK..   | 149      |
| NTDB id 1365    | NTHI RS01955 WP 011271973.1  | TTTCKGT.....DASLFPAFNCGSVTQ..   | 149      |
| NTDB id 1119    | NGFG RS11465 WP 017147169.1  | FCGQPVTRADDDTVADAKDGKEIDTKHLPS  | 166      |
| NTDB id 1191    | ACQ28468.1 484..945( )       | TCAPGAANG.....IETRLPTSCQ*       | 153      |
| NTDB id 1424    | RS RS02795 WP 011000517.1    | TCYAQNKAQAASSV.APSGTMSLAAKYAPAE | 168      |
| NTDB id 1002    | ACIAD RS15100 WP 004923779.1 | KCTTT.....SDKKYVPSECRG.....     | 147      |
| NTDB id 1122399 | EL239 RS05500 WP 126338719.1 | DCSGG.....TSDQYRPVNCR.....      | 135      |
| NTDB id 1258    | GC085 RS09745 WP 014844212.1 | TCTGG.....TLLAKYRPASCRP.....    | 136      |
| NTDB id 1274    | LPP RS09530 WP 011214168.1   | TCTGG.....TLLAKYRPASCRP.....    | 136      |
| consensus       |                              | ***.....*****!***               |          |

- X non conserved
- X similar
- X >50% conserved