

logo



|   |                        |                    |                 |                |               |                            |             |    |
|---|------------------------|--------------------|-----------------|----------------|---------------|----------------------------|-------------|----|
| NTDB id 600 KW2 RS01765 WP 011675413.1      | MATKKK....TNFDDITKKYGA | ERDKALADALALIEKD   | FGKGSIMRLGE     | .AANQKVS       | VSSGSLALDI    | ALGAGGYPKGR                | 74          |    |
| NTDB id 269 KZH43 RS08665 WP 001085462.1    | .MAKKP....KKLEEISKKFGA | EREKALNDALKLI      | IEKDFGKGSIMRLGE | .RAEQKVQVMSS   | GSLALDI       | ALGSGGYPKGR                | 73          |    |
| NTDB id 228 SPD RS09265 WP 001085462.1      | .MAKKP....KKLEEISKKFGA | EREKALNDALKLI      | IEKDFGKGSIMRLGE | .RAEQKVQVMSS   | GSLALDI       | ALGSGGYPKGR                | 73          |    |
| NTDB id 194 SPR RS08825 WP 001085462.1      | .MAKKP....KKLEEISKKFGA | EREKALNDALKLI      | IEKDFGKGSIMRLGE | .RAEQKVQVMSS   | GSLALDI       | ALGSGGYPKGR                | 73          |    |
| NTDB id 159 SP RS09750 WP 001085462.1       | .MAKKP....KKLEEISKKFGA | EREKALNDALKLI      | IEKDFGKGSIMRLGE | .RAEQKVQVMSS   | GSLALDI       | ALGSGGYPKGR                | 73          |    |
| NTDB id 527 SMSK321 RS11065 WP 001085454.1  | .MAKKP....KKLDEISKKFGA | EREKALNDALKLI      | IEKDFGKGSIMRLGE | .RAEQKVQVMSS   | GSLALDI       | ALGSGGYPKGR                | 73          |    |
| NTDB id 499 SM12261 RS08315 WP 078228268.1  | .MAKKP....KKLDEISKKFGA | EREKALNDALKLI      | IEKDFGKGSIMRLGE | .RAEQKVQVMSS   | GSLALDI       | ALGSGGYPKGR                | 73          |    |
| NTDB id 408 SMU RS09530 WP 002262392.1      | .MAKRI....KKTEEITKKFG  | DERKKALDDALKN      | IEKDFGKGAVMRLGE | .RAEQKVQVMSS   | GSLALDI       | ALGAGGYPKGR                | 73          |    |
| NTDB id 453 Spy49 1753c ACI62003.1          | .MAKKL....KKNEEITKKFG  | DERRKALDDALKN      | IEKDFGKGAVMRLGE | .RAEQKVQVMSS   | GSLALDI       | ALGAGGYPKGR                | 73          |    |
| NTDB id 115 BSU 16940 NP 389576.2           | .....MSDRQAALDMALK     | QIEKQFGKGSIMKLGE   | .KTDTRISTVPS    | GSLALDI        | TALGIGGYPRGR  | 58                         |             |    |
| NTDB id 625 LCA RS02525 WP 011374196.1      | .....MAKDERQAALDAALK   | KIEKNFGKGSIMRMGE   | .KVDTQVSTVSS    | GSLALDEAL      | GVGGYPRGR     | 60                         |             |    |
| NTDB id 1313 DR RS12030 WP 010888966.1      | .....MSKDATKEISAPTD    | AKERSKATETAM       | QIEKAFGKGSIMKLG | A.ESKLDVQVV    | STGSLSLDL     | ALGVGGIPRGR                | 72          |    |
| NTDB id 1245 Cj1673c YP 002345041.1         | .....MDNKRKSLDAALKS    | LDKTFGKGTILRLGD    | .KEVEQIDS       | IGTGSVGLDL     | ALGIGGVPKGR   | 59                         |             |    |
| NTDB id 1214 NCTC11637 00359 SQJ03206.1     | .....MAIDEDKQKATISLA   | IKQIDKVFGKGALVRLGD | .KQVEKIDA       | ISTGSLGLDL     | ALGIGGVPKGR   | 61                         |             |    |
| NTDB id 1211 C694 RS00795 WP 000963128.1    | .....MAIDEDKQKATISLA   | IKQIDKVFGKGALVRLGD | .KQVEKIDS       | ISTGSLGLDL     | ALGIGGVPKGR   | 61                         |             |    |
| NTDB id 1334 RAOC RS04870 WP 004918236.1    | .....MAKTE..TTSPND     | DKKALAAVLEKLDKT    | YKGTVMKLG       | DGTVDHNI       | IEVIPSGSLGLDL | ALGVGGYPKGR                | 68          |    |
| NTDB id 1389 A4U84 RS07560 WP 021112712.1   | .MAENKKS               | SKNNTVV..KQVEPE    | QKKQALEAALAQ    | IEKQFGKGSIMKLG | Q.TEQLDIES    | VSTGSLGLDL                 | ALGIGGLPMGR | 76 |
| NTDB id 1130 NGFG RS03960 WP 003688695.1    | .....MSDDKSKALAAAL     | AQIEKSFGKGAIMKMD   | GSGQEEENLEV     | ISTGSLGLDL     | ALGVGGLPRGR   | 60                         |             |    |
| NTDB id 1124 NGFG RS03960 WP 003688695.1    | .....MSDDKSKALAAAL     | AQIEKSFGKGAIMKMD   | GSGQEEENLEV     | ISTGSLGLDL     | ALGVGGLPRGR   | 60                         |             |    |
| NTDB id 1123 OK783 RS03845 WP 003688695.1   | .....MSDDKSKALAAAL     | AQIEKSFGKGAIMKMD   | GSGQEEENLEV     | ISTGSLGLDL     | ALGVGGLPRGR   | 60                         |             |    |
| NTDB id 1427 RS RS02760 WP 011000510.1      | .MEDG.....KK..AASMS    | AEKQKALAAALAQ      | IEKQFGKGSIMKMG  | D.AEVEPVQV     | VSTGSLGLD     | VALGVGGLPRGR               | 68          |    |
| NTDB id 1165 A1552VC RS01565 WP 000344154.1 | .....MDENKQKALAAAL     | GQIEKQFGKGSIMRLGD  | .NRAMDVET       | ISTGSLSLDI     | ALGAGGLPMGR   | 59                         |             |    |
| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | .....MDENKQKALAAAL     | GQIEKQFGKGSIMRLGD  | .NRAMDVET       | ISTGSLSLDI     | ALGAGGLPMGR   | 59                         |             |    |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | .....MDDNKSKALQAALS    | QIEKQFGKNTVMRLGD   | .NTVQAVEAV      | STGSLTLDI      | ALGIGGLPKGR   | 59                         |             |    |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | .....MDENKSKALQAALS    | QIEKQFGKNTVMRLGD   | .NTVQAVEAV      | STGSLTLDI      | ALGIGGLPKGR   | 59                         |             |    |
| NTDB id 141071 N805 RS16460 WP 019472216.1  | .....MDDNKRRALAAAL     | GQIERQFGKGAVMRMG   | D.QERQGI        | PAISTGSLGLDI   | ALGIGGLPKGR   | 59                         |             |    |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | .....MDENKRRALAAAL     | GQIEKQFGKGAVMRMG   | D.HDRQAI        | PSISTGSLGLDI   | ALGIGGLPKGR   | 59                         |             |    |
| consensus                                   |                        | *** ** *           | *****           | *!!*****       | *             | ***!!*!!*!!*!!*!!*!!*!!*!! |             |    |



logo



|   |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |
|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|
| NTDB id 600 KW2 RS01765 WP 011675413.1      | VV | I | D | S | V | A | A | L | V | P | K | A | E | I | D | G | E | I | G | D | S | S | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | L | G | H | I | N | K | T | K | T | T | A | I | F | I | N | Q | L | R | E | K | V | G | V | M | . | F | G | S | P | E | T | T | P | G | G | R | A | L | K | F | Y | A | . | 233 |     |     |
| NTDB id 269 KZH43 RS08665 WP 001085462.1    | V  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | D | G | I | G | D | S | H | V | G | L | Q | A | R | M | S | Q | A | M | R | K | L | G | A | S | I | N | K | T | K | T | I | A | I | F | I | N | Q | L | R | E | K | V | G | V | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | A | . | 232 |     |     |
| NTDB id 228 SPD RS09265 WP 001085462.1      | V  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | D | G | I | G | D | S | H | V | G | L | Q | A | R | M | S | Q | A | M | R | K | L | G | A | S | I | N | K | T | K | T | I | A | I | F | I | N | Q | L | R | E | K | V | G | V | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | A | . | 232 |     |     |
| NTDB id 194 SPR RS08825 WP 001085462.1      | V  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | D | G | I | G | D | S | H | V | G | L | Q | A | R | M | S | Q | A | M | R | K | L | G | A | S | I | N | K | T | K | T | I | A | I | F | I | N | Q | L | R | E | K | V | G | V | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | A | . | 232 |     |     |
| NTDB id 159 SP RS09750 WP 001085462.1       | V  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | D | G | I | G | D | S | H | V | G | L | Q | A | R | M | S | Q | A | M | R | K | L | G | A | S | I | N | K | T | K | T | I | A | I | F | I | N | Q | L | R | E | K | V | G | V | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | A | . | 232 |     |     |
| NTDB id 527 SMSK321 RS11065 WP 001085454.1  | V  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | D | G | I | G | D | S | H | V | G | L | Q | A | R | M | S | Q | A | M | R | K | L | G | A | S | I | N | K | T | K | T | I | A | I | F | I | N | Q | L | R | E | K | V | G | V | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | A | . | 232 |     |     |
| NTDB id 499 SM12261 RS08315 WP 078228268.1  | V  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | D | G | I | G | D | S | H | V | G | L | Q | A | R | M | S | Q | A | M | R | K | L | G | A | S | I | N | K | T | K | T | I | A | I | F | I | N | Q | L | R | E | K | V | G | V | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | A | . | 232 |     |     |
| NTDB id 408 SMU RS09530 WP 002262392.1      | V  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | D | G | I | G | D | S | H | V | G | L | Q | A | R | M | S | Q | A | M | R | K | L | S | A | S | I | N | K | T | K | T | I | A | I | F | I | N | Q | L | R | E | K | V | G | I | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | S | . | 232 |     |     |
| NTDB id 453 Spy49 1753c ACI62003.1          | V  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | D | G | I | G | D | S | H | V | G | L | Q | A | R | M | S | Q | A | M | R | K | L | S | A | S | I | N | K | T | K | T | I | A | I | F | I | N | Q | L | R | E | K | V | G | V | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | S | . | 232 |     |     |
| NTDB id 115 BSU 16940 NP 389576.2           | V  | V | V | D | S | V | A | A | L | V | P | K | A | E | I | E | G | M | G | D | S | H | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | L | S | G | A | I | N | K | S | K | T | I | A | I | F | I | N | Q | I | R | E | K | V | G | V | M | . | F | G | N | P | E | T | T | P | G | G | R | A | L | K | F | Y | S | .   | 217 |     |
| NTDB id 625 LCA RS02525 WP 011374196.1      | L  | V | V | D | S | V | A | A | L | V | P | R | A | E | I | E | G | E | M | G | D | A | H | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | L | S | G | T | I | N | K | T | K | T | I | A | L | F | I | N | Q | I | R | E | K | V | G | V | M | . | F | G | N | P | E | V | T | P | G | G | R | A | L | K | F | Y | S   | .   | 219 |
| NTDB id 1313 DR RS12030 WP 010888966.1      | V  | V | V | D | S | V | A | A | L | T | P | R | A | E | I | E | G | D | M | G | D | S | L | P | Q | L | A | R | L | M | S | Q | A | L | R | K | L | T | A | I | L | S | K | T | G | T | A | A | I | F | I | N | Q | V | R | E | K | I | G | V | M | . | Y | G | N | P | E | T | T | T | G | G | R | A | L | K | F | Y | A | .   | 231 |     |
| NTDB id 1245 Cj1673c YP 002345041.1         | I  | V | V | D | S | V | A | A | L | T | P | K | A | E | I | E | G | D | M | G | D | Q | H | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | L | T | G | I | V | H | K | M | N | T | T | V | I | F | I | N | Q | I | R | M | K | I | G | A | M | G | Y | G | T | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 219 |
| NTDB id 1214 NCTC11637 00359 SQJ03206.1     | V  | V | V | D | S | V | A | A | L | T | P | K | A | E | I | D | G | D | M | G | D | Q | H | V | G | L | Q | A | R | L | M | S | H | A | L | R | K | I | T | G | V | L | H | K | M | N | T | T | L | I | F | I | N | Q | I | R | M | K | I | G | M | M | G | Y | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 221 |
| NTDB id 1211 C694 RS00795 WP 000963128.1    | V  | V | V | D | S | V | A | A | L | T | P | K | A | E | I | D | G | D | M | G | D | Q | H | V | G | L | Q | A | R | L | M | S | H | A | L | R | K | I | T | G | V | L | H | K | M | N | T | T | L | I | F | I | N | Q | I | R | M | K | I | G | M | M | G | Y | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 221 |
| NTDB id 1334 RAOC RS04870 WP 004918236.1    | V  | V | V | D | S | V | A | A | L | T | P | K | A | E | I | D | G | D | M | G | D | S | K | M | G | L | H | A | R | L | M | S | Q | A | L | R | K | L | T | S | S | I | S | K | T | K | T | V | I | F | I | N | Q | L | R | D | K | I | G | V | M | . | F | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | A | .   | 227 |     |
| NTDB id 1389 A4U84 RS07560 WP 021112712.1   | I  | I | V | D | S | V | A | A | L | T | P | K | A | E | I | E | G | D | M | G | D | S | H | M | G | L | Q | A | R | L | M | S | Q | A | L | R | K | L | T | A | N | I | K | N | T | N | C | L | V | V | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | N | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 235 |
| NTDB id 1130 NGFG RS03960 WP 003688695.1    | V  | V | V | D | S | V | A | A | L | V | P | K | A | E | I | E | G | D | M | G | D | S | H | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | L | T | G | H | I | K | K | T | N | T | L | V | V | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | S   | .   | 219 |
| NTDB id 1124 NGFG RS03960 WP 003688695.1    | V  | V | V | D | S | V | A | A | L | V | P | K | A | E | I | E | G | D | M | G | D | S | H | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | L | T | G | H | I | K | K | T | N | T | L | V | V | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | S   | .   | 219 |
| NTDB id 1123 OK783 RS03845 WP 003688695.1   | V  | V | V | D | S | V | A | A | L | V | P | K | A | E | I | E | G | D | M | G | D | S | H | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | L | T | G | H | I | K | K | T | N | T | L | V | V | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | S   | .   | 219 |
| NTDB id 1427 RS RS02760 WP 011000510.1      | I  | V | I | D | S | V | A | A | L | V | P | K | A | E | I | E | G | E | M | G | D | A | L | P | Q | L | A | R | L | M | S | Q | A | L | R | K | L | T | G | T | I | K | R | T | N | C | L | V | I | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | A | .   | 227 |     |
| NTDB id 1165 A1552VC RS01565 WP 000344154.1 | I  | V | V | D | S | V | A | A | L | T | P | K | A | E | I | E | G | E | M | G | D | S | H | M | G | L | Q | A | R | M | L | S | Q | A | M | R | K | L | T | G | N | L | K | Q | S | N | C | M | C | I | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | N | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 218 |
| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | I  | V | V | D | S | V | A | A | L | T | P | K | A | E | I | E | G | E | M | G | D | S | H | M | G | L | Q | A | R | M | L | S | Q | A | M | R | K | L | T | G | N | L | K | Q | S | N | C | M | C | I | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | N | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 218 |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | I  | V | V | D | S | V | A | A | L | T | P | K | A | E | I | E | G | E | M | G | D | S | H | M | G | L | Q | A | R | L | M | S | Q | A | L | R | K | I | T | G | N | A | K | R | S | N | C | M | V | I | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 218 |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | I  | V | V | D | S | V | A | A | L | T | P | K | A | E | I | E | G | E | M | G | D | S | H | M | G | L | Q | A | R | L | M | S | Q | A | L | R | K | I | T | G | N | A | K | R | S | N | C | M | V | I | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 218 |
| NTDB id 141071 N805 RS16460 WP 019472216.1  | I  | I | V | D | S | V | A | A | L | V | P | K | A | E | I | E | G | E | M | G | D | M | H | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | I | T | G | N | I | K | N | A | N | C | L | V | I | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G | S | P | E | T | T | T | G | G | N | A | L | K | F | Y | A   | .   | 218 |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | I  | I | V | D | S | V | A | A | L | V | P | K | A | E | I | E | G | E | M | G | D | A | H | V | G | L | Q | A | R | L | M | S | Q | A | L | R | K | I | T | G | N | I | K | N | A | N | C | L | V | I | F | I | N | Q | I | R | M | K | I | G | V | M | . | F | G |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |





logo

|   |     |     |
|---|-----|-----|
| NTDB id 600 KW2 RS01765 WP 011675413.1      | ... | 387 |
| NTDB id 269 KZH43 RS08665 WP 001085462.1    | IEE | 388 |
| NTDB id 228 SPD RS09265 WP 001085462.1      | IEE | 388 |
| NTDB id 194 SPR RS08825 WP 001085462.1      | IEE | 388 |
| NTDB id 159 SP RS09750 WP 001085462.1       | IEE | 388 |
| NTDB id 527 SMSK321 RS11065 WP 001085454.1  | IEE | 384 |
| NTDB id 499 SM12261 RS08315 WP 078228268.1  | IEE | 384 |
| NTDB id 408 SMU RS09530 WP 002262392.1      | D.. | 383 |
| NTDB id 453 Spy49 1753c ACI62003.1          | D.. | 378 |
| NTDB id 115 BSU 16940 NP 389576.2           | ... | 348 |
| NTDB id 625 LCA RS02525 WP 011374196.1      | ... | 355 |
| NTDB id 1313 DR RS12030 WP 010888966.1      | ... | 363 |
| NTDB id 1245 Cj1673c YP 002345041.1         | ... | 343 |
| NTDB id 1214 NCTC11637 00359 SQJ03206.1     | ... | 347 |
| NTDB id 1211 C694 RS00795 WP 000963128.1    | ... | 347 |
| NTDB id 1334 RAOC RS04870 WP 004918236.1    | ... | 343 |
| NTDB id 1389 A4U84 RS07560 WP 021112712.1   | ... | 372 |
| NTDB id 1130 NGFG RS03960 WP 003688695.1    | ... | 348 |
| NTDB id 1124 NGFG RS03960 WP 003688695.1    | ... | 348 |
| NTDB id 1123 OK783 RS03845 WP 003688695.1   | ... | 348 |
| NTDB id 1427 RS RS02760 WP 011000510.1      | ... | 352 |
| NTDB id 1165 A1552VC RS01565 WP 000344154.1 | ... | 354 |
| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | ... | 354 |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | ... | 349 |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | ... | 349 |
| NTDB id 141071 N805 RS16460 WP 019472216.1  | ... | 355 |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | ... | 347 |

consensus

 non conserved  
 similar  
 ≥ 50% conserved