

logo

|                                             |                                                                                     |    |
|---------------------------------------------|-------------------------------------------------------------------------------------|----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | MSXLTIGDRRLGAALLDAGLLTDEELQRALERHREVGGS LAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPVKV   | 0  |
| NTDB id 1028 TT RS08215 WP 011173991.1      | MSVLTIGDKRLGAALLDAGLLTDEELQRALERHREVGGS LAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPVKV   | 80 |
| NTDB id 1306 DR RS10060 WP 027479822.1      | .MALSIGDRRLGAILLDQG YLGDN DLQRALERHSEVGGRLADVLIDSGMVGEKRIARAIEEALGIPLVNL LAVQPDPAAL | 79 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1   | .....                                                                               | 0  |
| NTDB id 1366 NTHI RS01950 WP 011271972.1    | .....                                                                               | 0  |
| NTDB id 1355 HI 0298 AAC21962.1             | .....                                                                               | 0  |
| NTDB id 58814 NGK50 RS04285 WP 015572679.1  | .....                                                                               | 0  |
| NTDB id 1436 BW25113 RS00530 WP 001025145.1 | .....                                                                               | 0  |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | .....                                                                               | 0  |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | .....                                                                               | 0  |
| NTDB id 1293 VP RS12240 WP 005479695.1      | .....                                                                               | 0  |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | .....                                                                               | 0  |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                                                               | 0  |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | .....                                                                               | 0  |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                                                               | 0  |
| consensus                                   |                                                                                     |    |

logo

|                                             |                                                                                  |     |
|---------------------------------------------|----------------------------------------------------------------------------------|-----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | RYTETAKELRAFPFALSEEGRVAHYBPLSTEEYEDSGHYEPYQTEREYAAAHYPELGLLEYPSC                 | 0   |
| NTDB id 1028 TT RS08215 WP 011173991.1      | ALLPAEKAKELKAIPFALDEEAGVVRVAFLNPLDTLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPP..P | 158 |
| NTDB id 1306 DR RS10060 WP 027479822.1      | RSIRPQTALNLQAFPFALE..GDRRLVALVDPLSSFSIETLEDDSGFDIEPYQALREEVMWAIATHYPELGLEIVVPSGA | 157 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1   | .....                                                                            | 0   |
| NTDB id 1366 NTHI RS01950 WP 011271972.1    | .....                                                                            | 0   |
| NTDB id 1355 HI 0298 AAC21962.1             | .....                                                                            | 0   |
| NTDB id 58814 NGK50 RS04285 WP 015572679.1  | .....                                                                            | 0   |
| NTDB id 1436 BW25113 RS00530 WP 001025145.1 | .....                                                                            | 0   |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | .....                                                                            | 0   |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | .....                                                                            | 0   |
| NTDB id 1293 VP RS12240 WP 005479695.1      | .....                                                                            | 0   |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | .....                                                                            | 0   |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                                                            | 0   |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | .....                                                                            | 0   |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                                                            | 0   |
| consensus                                   |                                                                                  |     |

logo

|                                             |                                                                                    |     |
|---------------------------------------------|------------------------------------------------------------------------------------|-----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | .....MTS                                                                           | 3   |
| NTDB id 1028 TT RS08215 WP 011173991.1      | LLLLRSDALRYGAVPIGFQNGEVEVVLSDPRHKEAVAQLLNRPARFYALALPQAWHEELFRRAYPQKNRLGEVLVQEGKLSR | 317 |
| NTDB id 1306 DR RS10060 WP 027479822.1      | GSMLRADALRLLAVPVDETEQGVTVLTSDPRKRPDIDALIGRPVQLMLTRPRDIERLIEQFYPPQRGRLLGEQLVQEGTLSR | 317 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1   | .....                                                                              | 0   |
| NTDB id 1366 NTHI RS01950 WP 011271972.1    | .....                                                                              | 0   |
| NTDB id 1355 HI 0298 AAC21962.1             | .....                                                                              | 0   |
| NTDB id 58814 NGK50 RS04285 WP 015572679.1  | .....                                                                              | 0   |
| NTDB id 1436 BW25113 RS00530 WP 001025145.1 | .....                                                                              | 0   |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | .....                                                                              | 0   |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | .....                                                                              | 0   |
| NTDB id 1293 VP RS12240 WP 005479695.1      | .....                                                                              | 0   |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | .....                                                                              | 0   |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                                                              | 0   |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | .....                                                                              | 0   |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                                                              | 0   |
| consensus                                   |                                                                                    |     |

logo

|                  |       |                                |
|------------------|-------|--------------------------------|
| NTDB id          | 1410  | SGL RS13950 WP 010873519.1     |
| NTDB id          | 1028  | TT RS08215 WP 011173991.1      |
| NTDB id          | 1306  | DR RS10060 WP 027479822.1      |
| NTDB id          | 1384  | A4U84 RS08525 WP 010787006.1   |
| NTDB id          | 1366  | NTHI RS01950 WP 011271972.1    |
| NTDB id          | 1355  | HI 0298 AAC21962.1             |
| NTDB id          | 58814 | NGK50 RS04285 WP 015572679.1   |
| NTDB id          | 1436  | BW25113 RS00530 WP 001025145.1 |
| NTDB id          | 1168  | A1552VC RS11070 WP 000957200.1 |
| NTDB id          | 1401  | DSB67 RS12665 WP 010643259.1   |
| NTDB id          | 1293  | VP RS12240 WP 005479695.1      |
| NTDB id          | 1110  | NGFG RS09235 WP 003689817.1    |
| NTDB id          | 1251  | GCO85 RS07725 WP 011946523.1   |
| NTDB id          | 1018  | ACIAD RS01685 WP 004920473.1   |
| NTDB id          | 1058  | ABD1 RS01615 WP 001274986.1    |
| <b>consensus</b> |       |                                |

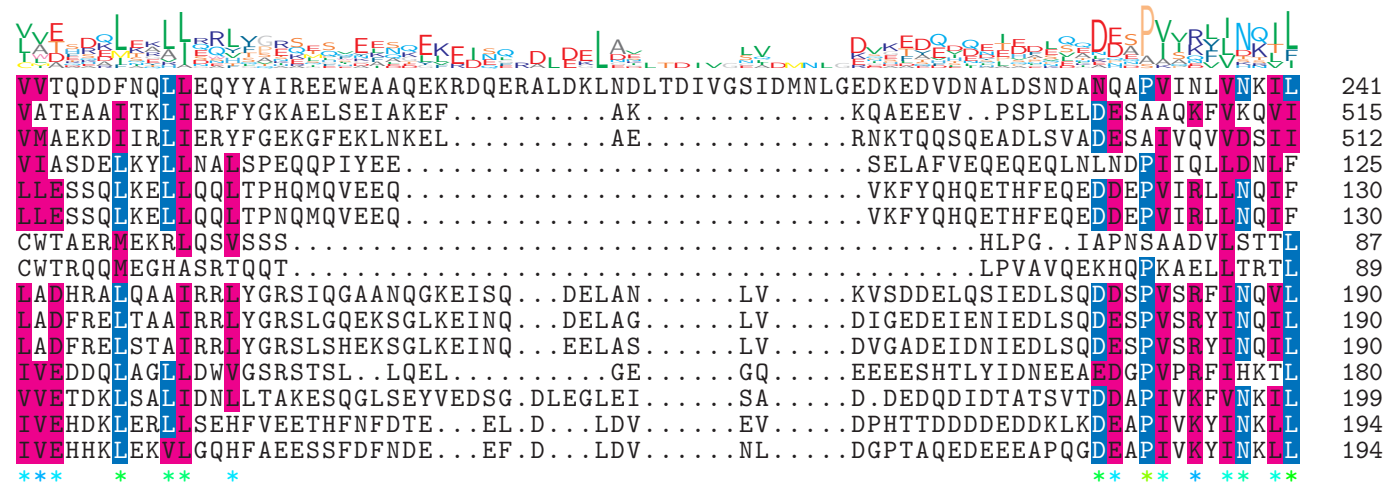
logo

|           |    |       |                                |                                                                                                  |     |
|-----------|----|-------|--------------------------------|--------------------------------------------------------------------------------------------------|-----|
| NTDB      | id | 1410  | SGL RS13950 WP 010873519.1     | VDSVDPEVAPIATQQAELIGRFFPLDTCRRFKFLPLAQEQEGDPSPVLVAMVPDNDLAAQDELNRILRVKGF...ELRRLL                | 161 |
| NTDB      | id | 1028  | TT RS08215 WP 011173991.1      | GYPYVDPEEDPPDP....GAPLLLLPEDLCRRYGVPFHRLEG...NRLVLLMKDPRNILALDDVRLALKRKGLNYEVAPA                 | 460 |
| NTDB      | id | 1306  | DR RS10060 WP 027479822.1      | GYEFLDPIQNPPDP....KVALMIPEATARRVVVVPVRLQG...NSLVVAMKDPRNVFALDDLKLITG....KEILPA                   | 455 |
| NTDB      | id | 1384  | A4U84 RS08525 WP 010787006.1   | D.....ISPSR....WQKNCEEKQLLLRYLAVPVQETE...HKLWLAVDDENNLTACEIFAFTMTH....KQIEPV                     | 74  |
| NTDB      | id | 1366  | NHI RS01950 WP 011271972.1     | T.....ISPDL....WERNQQQSSLLLRVFALPLKEEN...NRLWLGVDLSNLACSACETIAFITG....KPVEPI                     | 79  |
| NTDB      | id | 1355  | HI 0298 AAC21962.1             | T.....ISPDL....WERNQQQSSLLLRVFALPLKEEN...NRLWLGVDLSNLACSACETIAFITG....KPVEPI                     | 79  |
| NTDB      | id | 58814 | NGK50 RS04285 WP 015572679.1   | .....MNTSQLMTLCQRHHALLLASDT...DMTISIAVVGNPASELMEARLFATQ....KRIDIE                                | 52  |
| NTDB      | id | 1436  | BW25113 RS00530 WP 001025145.1 | .....MNIPQLTALCLRYHGVLLDASE...EVVHVAVVDAPSHELLDALHFATT....KRIFIT                                 | 52  |
| NTDB      | id | 1168  | A1552VC RS11070 WP 000957200.1 | GLPETDLRSYDYAN....LCQQLGLRELITRYDALPTAKGG...NLILLAVSDPTLLQAEFEFRFATG....LQVELA                   | 124 |
| NTDB      | id | 1401  | DSB67 RS12665 WP 010643259.1   | GLSCTSLNQYEYAS....LCQTGLGRDLITRHNAIPLNRGS...STLLILAVADPTNLQAEDDFRFATG....LQVELV                  | 124 |
| NTDB      | id | 1293  | VP RS12240 WP 005479695.1      | GLSQPDLNQYEYAS....LCQQLGLRELITRHNAIPLHRTTP...STLLILAVADPTNLQAEDDFRFATG....LQVELV                 | 124 |
| NTDB      | id | 1110  | NGFG RS09235 WP 003689817.1    | SYSILDLRHYPRHR....VLMGVLTTEEQMVEFHCVVPVFRRG...DKVFFAVSDPTQMPQIQKTVSAAG....IAVELV                 | 123 |
| NTDB      | id | 1251  | GCO85 RS07725 WP 011946523.1   | GVPMOLDINCIDVGT....IPVNLVNEKLIKRRHAMVPLFSRG...TNLYLATDPSKQASLKEIQFHTG....LNTHAI                  | 132 |
| NTDB      | id | 1018  | ACIAD RS01685 WP 004920473.1   | GEPLLDLGVFDPAL....FLKDKIDEKLIQKYRIMPLVHRG...HVLIVATSNTNTEAMDPAIRFNKSK....LKVEPI                  | 132 |
| NTDB      | id | 1058  | ABD1 RS01615 WP 001274986.1    | AEPYFDLDVYDTSQ....IPKDLVDQKLLIKHRILPLIQRG...QILYVATSNTNTEAMDPAIRFNKSK....LLVEPV                  | 132 |
| consensus |    |       |                                | *          *                    **      ***                *****          *      *      *      * |     |

```

NTDB id 1410 SGL RS13950 WP 010873519.1
NTDB id 1028 TT RS08215 WP 011173991.1
NTDB id 1306 DR RS10060 WP 027479822.1
NTDB id 1384 A4U84 RS08525 WP 010787006.1
NTDB id 1366 NTHI RS01950 WP 011271972.1
NTDB id 1355 HI 0298 AAC21962.1
NTDB id 58814 NGK50 RS04285 WP 015572679.1
NTDB id 1436 BW25113 RS00530 WP 001025145.1
NTDB id 1168 A1552VC RS11070 WP 000957200.1
NTDB id 1401 DSB67 RS12665 WP 010643259.1
NTDB id 1293 VP RS12240 WP 005479695.1
NTDB id 1110 NGFG RS09235 WP 003689817.1
NTDB id 1251 GC085 RS07725 WP 011946523.1
NTDB id 1018 ACIAD RS01685 WP 004920473.1
NTDB id 1058 ABD1 RS01615 WP 001274986.1
consensus

```



```

NTDB id 1410 SGL RS13950 WP 010873519.1
NTDB id 1028 TT RS08215 WP 011173991.1
NTDB id 1306 DR RS10060 WP 027479822.1
NTDB id 1384 A4U84 RS08525 WP 010787006.1
NTDB id 1366 NTHI RS01950 WP 011271972.1
NTDB id 1355 HI 0298 AAC21962.1
NTDB id 58814 NGK50 RS04285 WP 015572679.1
NTDB id 1436 BW25113 RS00530 WP 001025145.1
NTDB id 1168 A1552VC RS11070 WP 000957200.1
NTDB id 1401 DSB67 RS12665 WP 010643259.1
NTDB id 1293 VP RS12240 WP 005479695.1
NTDB id 1110 NGFG RS09235 WP 003689817.1
NTDB id 1251 GC085 RS07725 WP 011946523.1
NTDB id 1018 ACIAD RS01685 WP 004920473.1
NTDB id 1058 ABD1 RS01615 WP 001274986.1
consensus

```



NTDB id 1410 SGL RS13950 WP 010873519.1  
NTDB id 1028 TT RS08215 WP 011173991.1  
NTDB id 1306 DR RS10060 WP 027479822.1  
NTDB id 1384 A4U84 RS08525 WP 010787006.1  
NTDB id 1366 NTHI RS01950 WP 011271972.1  
NTDB id 1355 HI 0298 AAC21962.1  
NTDB id 58814 NGK50 RS04285 WP 015572679.1  
NTDB id 1436 BW25113 RS00530 WP 001025145.1  
NTDB id 1168 A1552VC RS11070 WP 000957200.1  
NTDB id 1401 DSB67 RS12665 WP 010643259.1  
NTDB id 1293 VP RS12240 WP 005479695.1  
NTDB id 1110 NGFG RS09235 WP 003689817.1  
NTDB id 1251 GC085 RS07725 WP 011946523.1  
NTDB id 1018 ACIAD RS01685 WP 004920473.1  
NTDB id 1058 ABD1 RS01615 WP 001274986.1  
consensus



logo

|                                             |                                  |     |
|---------------------------------------------|----------------------------------|-----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | RLDEMGVEPFMVS                    | 558 |
| NTDB id 1028 TT RS08215 WP 011173991.1      | RLDEMGVEPFNISA                   | 816 |
| NTDB id 1306 DR RS10060 WP 027479822.1      | RLEEMGIENFNISA                   | 813 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1   | RLQLGLGIQEY                      | 400 |
| NTDB id 1366 NTHI RS01950 WP 011271972.1    | RLQQLGLGIQHEI                    | 407 |
| NTDB id 1355 HI 0298 AAC21962.1             | RLQQLGLGIQY                      | 407 |
| NTDB id 58814 NGK50 RS04285 WP 015572679.1  | RLQQMGMVARW                      | 383 |
| NTDB id 1436 BW25113 RS00530 WP 001025145.1 | RLQQMGMVARW                      | 385 |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | RLANMGVEPFN                      | 490 |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | RLSNMGVESFNL                     | 489 |
| NTDB id 1293 VP RS12240 WP 005479695.1      | RLSNMGVESFNL                     | 489 |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | RMLNMGVAPFN                      | 485 |
| NTDB id 1251 GCO85 RS07725 WP 011946523.1   | RLVNMGIPTFN                      | 502 |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | RLRNMGVIASF                      | 498 |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | RLRNMGVPSFN                      | 498 |
| consensus                                   | !* **!* *** **** *****!!!!!!*! * | **  |

logo

|                                             |                    |     |
|---------------------------------------------|--------------------|-----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | QKCSGS             | 637 |
| NTDB id 1028 TT RS08215 WP 011173991.1      | ERC                | 889 |
| NTDB id 1306 DR RS10060 WP 027479822.1      | PRCGGT             | 887 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1   | DECY               | 461 |
| NTDB id 1366 NTHI RS01950 WP 011271972.1    | CDCH               | 464 |
| NTDB id 1355 HI 0298 AAC21962.1             | CDCH               | 464 |
| NTDB id 58814 NGK50 RS04285 WP 015572679.1  | DRCY               | 459 |
| NTDB id 1436 BW25113 RS00530 WP 001025145.1 | VHCY               | 461 |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | NECT               | 562 |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | NECT               | 561 |
| NTDB id 1293 VP RS12240 WP 005479695.1      | NECT               | 561 |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | DRCRGQ             | 558 |
| NTDB id 1251 GCO85 RS07725 WP 011946523.1   | EQCT               | 574 |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | HDCR               | 570 |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | LECR               | 570 |
| consensus                                   | ! !*!!****** * * * | **  |

logo

|                                             |                                      |     |
|---------------------------------------------|--------------------------------------|-----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | EMRAKRRKSALTCRTCAAELQQEWLDCPYCMTSRFS | 672 |
| NTDB id 1028 TT RS08215 WP 011173991.1      | .....                                | 889 |
| NTDB id 1306 DR RS10060 WP 027479822.1      | .....                                | 887 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1   | .....                                | 461 |
| NTDB id 1366 NTHI RS01950 WP 011271972.1    | .....                                | 464 |
| NTDB id 1355 HI 0298 AAC21962.1             | .....                                | 464 |
| NTDB id 58814 NGK50 RS04285 WP 015572679.1  | .....                                | 459 |
| NTDB id 1436 BW25113 RS00530 WP 001025145.1 | .....                                | 461 |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | .....                                | 562 |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | .....                                | 561 |
| NTDB id 1293 VP RS12240 WP 005479695.1      | .....                                | 561 |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | .....                                | 558 |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                | 574 |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | .....                                | 570 |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                | 570 |
| consensus                                   |                                      |     |

-  non conserved
-  similar
-  ≥ 50% conserved