

logo

| NTDB id         | Accession                      | Species | Gene    | Protein        | Score |
|-----------------|--------------------------------|---------|---------|----------------|-------|
| NTDB id 1306    | DR RS10060 WP 027479822.1      | DR      | RS10060 | WP 027479822.1 | 0     |
| NTDB id 1028    | TT RS08215 WP 011173991.1      | TT      | RS08215 | WP 011173991.1 | 0     |
| NTDB id 1384    | A4U84 RS08525 WP 010787006.1   | A4U84   | RS08525 | WP 010787006.1 | 0     |
| NTDB id 1355    | HI 0298 AAC21962.1             | HI      | 0298    | AAC21962.1     | 0     |
| NTDB id 1126751 | FGK83 RS03710 WP 138171687.1   | FGK83   | RS03710 | WP 138171687.1 | 0     |
| NTDB id 1366    | NTHI RS01950 WP 011271972.1    | NTHI    | RS01950 | WP 011271972.1 | 0     |
| NTDB id 1168    | A1552VC RS11070 WP 000957200.1 | A1552VC | RS11070 | WP 000957200.1 | 0     |
| NTDB id 1401    | DSB67 RS12665 WP 010643259.1   | DSB67   | RS12665 | WP 010643259.1 | 0     |
| NTDB id 1293    | VP RS12240 WP 005479695.1      | VP      | RS12240 | WP 005479695.1 | 0     |
| NTDB id 1110    | NGFG RS09235 WP 003689817.1    | NGFG    | RS09235 | WP 003689817.1 | 0     |
| NTDB id 1251    | GC085 RS07725 WP 011946523.1   | GC085   | RS07725 | WP 011946523.1 | 0     |
| NTDB id 1018    | ACIAD RS01685 WP 004920473.1   | ACIAD   | RS01685 | WP 004920473.1 | 0     |
| NTDB id 1058    | ABD1 RS01615 WP 001274986.1    | ABD1    | RS01615 | WP 001274986.1 | 0     |
| consensus       |                                |         |         |                |       |

logo

|                                              |                                                                                   |     |
|----------------------------------------------|-----------------------------------------------------------------------------------|-----|
| NTDB id 1306 DR RS10060 WP 027479822.1       | RSIRPQTALNLQAFPPFALE..GDRLRVALVDPLSSFSIETLEDDSGFDIEPYQALREEVMWAIATHYPELGLEIVVPSGA | 157 |
| NTDB id 1028 TT RS08215 WP 011173991.1       | ALLPAEKAKELKAIPFALDEEAGVVRVAFNLPLDTLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPP..P  | 158 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1    | .....                                                                             | 0   |
| NTDB id 1355 HI 0298 AAC21962.1              | .....                                                                             | 0   |
| NTDB id 1126751 FGK83 RS03710 WP 138171687.1 | .....                                                                             | 0   |
| NTDB id 1366 NTHI RS01950 WP 011271972.1     | .....                                                                             | 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                                    |                                                                                   |     |

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|                                              |                                                                                 |     |
|----------------------------------------------|---------------------------------------------------------------------------------|-----|
| NTDB id 1306 DR RS10060 WP 027479822.1       | SDAGRTGGKLGRLITHGYITDAQLQVALDAQQTGEALGATLISQRAITEDQLYEVLAEQEGTTFLPNPSGFGHPGEEVL | 237 |
| NTDB id 1028 TT RS08215 WP 011173991.1       | SGEGQKDLKLGELLQKGWISREALEEALVEQEKTGDLLGRILV.RKGLPEEALYRALAEQKGLFLESTEGIVDPDSAA  | 237 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1    | .....                                                                           | 0   |
| NTDB id 1355 HI 0298 AAC21962.1              | .....                                                                           | 0   |
| NTDB id 1126751 FGK83 RS03710 WP 138171687.1 | .....                                                                           | 0   |
| NTDB id 1366 NTHI RS01950 WP 011271972.1     | .....                                                                           | 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                                    |                                                                                 |     |

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|                                              |                                                                                  |     |
|----------------------------------------------|----------------------------------------------------------------------------------|-----|
| NTDB id 1306 DR RS10060 WP 027479822.1       | LSLRDALRYAVPYGSSSVVYSDPRRERXLRNPXSMLXSPZYELHBSYYPQRRLGEXLVQEGELSR                |     |
| NTDB id 1028 TT RS08215 WP 011173991.1       | GSMLRADALRLLAVPVDETEQGVTVLTSDPRKRPDIDALIGRPVQMLLTRPDIERLIEQFYPPQRGRLGEQLVQEGTLSR | 317 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1    | LLLLRSDALRYGAVPIGFQNGEVEVVLSDPRHKEAVAQLLNRPARFYALPQAWHEELFRRAYPQKNRLGEVLVQEGKLSR | 317 |
| NTDB id 1355 HI 0298 AAC21962.1              | .....                                                                            | 0   |
| NTDB id 1126751 FGK83 RS03710 WP 138171687.1 | .....                                                                            | 0   |
| NTDB id 1366 NTHI RS01950 WP 011271972.1     | .....                                                                            | 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                                    |                                                                                  |     |

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|----------------------------------------------|------------------------------------------------------------------------------------|-----|
| NTDB id 1306 DR RS10060 WP 027479822.1       | DQLREALQVQAREGKVKPLGEVTELGFASPDEVDSALQKQNVGGGRLEDTLVQSCKISPEMARSAAQLGYEFLDPIQ      | 397 |
| NTDB id 1028 TT RS08215 WP 011173991.1       | EALKEALEVQKGLPRAKPLGEIVELGLARPEDVEEALQKQRRGGGRLEDTLVQSCKIRPEALAAQAVATQLGYPYVDPEE   | 397 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1    | .....MSQYTI.....CEQQTERFD.....                                                     | 16  |
| NTDB id 1355 HI 0298 AAC21962.1              | .....MTSYALLHTQRVTAKNGEVFT.....                                                    | 21  |
| NTDB id 1126751 FGK83 RS03710 WP 138171687.1 | .....MTSYALLHTQRVIAQNGEVFT.....                                                    | 21  |
| NTDB id 1366 NTHI RS01950 WP 011271972.1     | .....MTSYALLHTQRVTAQNGEVFT.....                                                    | 21  |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1  | .....MLTNLVAIRLQAEELISATQEQAVVTQVSASGTSPEADLELSIFHAQELTEQLSHIFGLPETQLSR            | 66  |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1    | .....MLTNLSTVLRQAGILTFQSQEESLLEQVKASGISMPEALLSSGFFQSHELTEHSSVFGLSCTSLNQ            | 66  |
| NTDB id 1293 VP RS12240 WP 005479695.1       | .....MHSNLSTILRQKGLLTFQSQEESLIEQVKASGISMPEALLSSGFFTSSELAEHSSIFGLSQPQLSQ            | 66  |
| NTDB id 1110 NGFG RS09235 WP 003689817.1     | .....MSVGLLRILVQNQVVTVEQAEHYYNESQAGKEVLPMLFSDGVISPKSLAALIARVFSYSILDLRH             | 65  |
| NTDB id 1251 GC085 RS07725 WP 011946523.1    | .....MALATEEYRLQGIGQLLVLEKLLDKTKAIELHKLAAAEKISLLQYIVKNKILSAEQIALTAAQNFQVPMLDINC    | 74  |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1    | .....MSAFTTPPKFSGFIRRLVEEGYVNAQNMQQALEKAKKFKQDTPVYLDNFSISPLTIAEISLEFGEPLLDLGV      | 74  |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1     | .....MSALHTSPKFTGFFRRILVEEKHVSAAATMQTALDAAKRAKQDTPVAYLIEEVHISPSLLAETISAEFAEPYFDLDV | 74  |
| consensus                                    | .....*.....*                                                                       |     |

logo

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|----------------------------------------------|------------------------------------------------------------------------------------|-----|
| NTDB id 1306 DR RS10060 WP 027479822.1       | NPPDPKVALIPEATARRVYVVPVRLQGNSLVVANKDPRNVFALDDKLITG.....KEILPAVMAEKDITRLIERFYFGE    | 472 |
| NTDB id 1028 TT RS08215 WP 011173991.1       | DPPDPGAPLILPEDLCRRYGVFPHRLEGNRLVLLMKDPRNILALDDVRLALKRKGLNYESVAPAVATEAAITKLIERYFYGK | 477 |
| NTDB id 1384 A4U84 RS08525 WP 010787006.1    | ISPSRWQKNCEEKQLLLRYLAVPVQETEHKLWLAVDDENMLTACHEIFAFMTH.....KQIEPVVVIASDEIKYLDNAISPE | 91  |
| NTDB id 1355 HI 0298 AAC21962.1              | ISPDLWERNQQQSSLLRLRYFALPLKEENNRLWLGVDSLSNLSACETIAFITG.....KPVEPILLESSQLKELLQQLTPN  | 96  |
| NTDB id 1126751 FGK83 RS03710 WP 138171687.1 | ISPDLWERNQQQSSLLRLRYFALPLKEENNRLWLGVDSLSNLSACETIAFITG.....KPVEPILLESSQLKELLQQLTPC  | 96  |
| NTDB id 1366 NTHI RS01950 WP 011271972.1     | ISPDLWERNQQQSSLLRLRYFALPLKEENNRLWLGVDSLSNLSACETIAFITG.....KPVEPILLESSQLKELLQQLTPH  | 96  |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1  | YDYANLCQQLGLRELITRYDALPIAKQGNLLLLAVSDPTILLQAEFEFRFATG.....LQVELALADHRAALQAAIRRLYGR | 141 |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1    | YEYASLCQTLGLRDLITRHNALPLNRTSSSTLILAVADPTNLQAEDDFRFATG.....LQVELVLADFRELTAARRLYGR   | 141 |
| NTDB id 1293 VP RS12240 WP 005479695.1       | YEYASLCQQLGLRELITRHNALPLHRTPTSTLLAVADPTNLQAEDDFRFATG.....LQVELVLADFRELSTARRLYGR    | 141 |
| NTDB id 1110 NGFG RS09235 WP 003689817.1     | YPRHRVLMGVLTEEQMVETHCVPVFRRGDKVFAVSDPTOMPQIQKTVSAAQ.....IAVELVIVEDDQLAGLDWVGSR     | 140 |
| NTDB id 1251 GC085 RS07725 WP 011946523.1    | IDVGTIPVNLVNEKLIKRRHAMPLFSRGNTLYLATDDPSKQASLKEIQFHTG.....LNTHAIVVETDCKLSALIDNLTA   | 149 |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1    | FDPALFLKDKIDEKLIQKVRIMPLVHRGHVLYVATSPNTIEMADIRFNSK.....LKVEPIVEHDKLERLISEHFVE      | 149 |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1     | YDTSQIPKDLVDQKLILKHRILPLIQRGQILYVATSPNSIEATDAIRFNSK.....LLVEPVIVEHHKLEKVLGQHFAE    | 149 |
| consensus                                    | *.....*!*.....*.....*                                                              |     |

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NTDB id 1366 NTHI RS01950 WP 011271972.1
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NTDB id 1401 DSB67 RS12665 WP 010643259.1
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consensus

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consensus

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NTDB id 1018 ACIAD RS01685 WP 004920473.1
NTDB id 1058 ABD1 RS01615 WP 001274986.1
consensus

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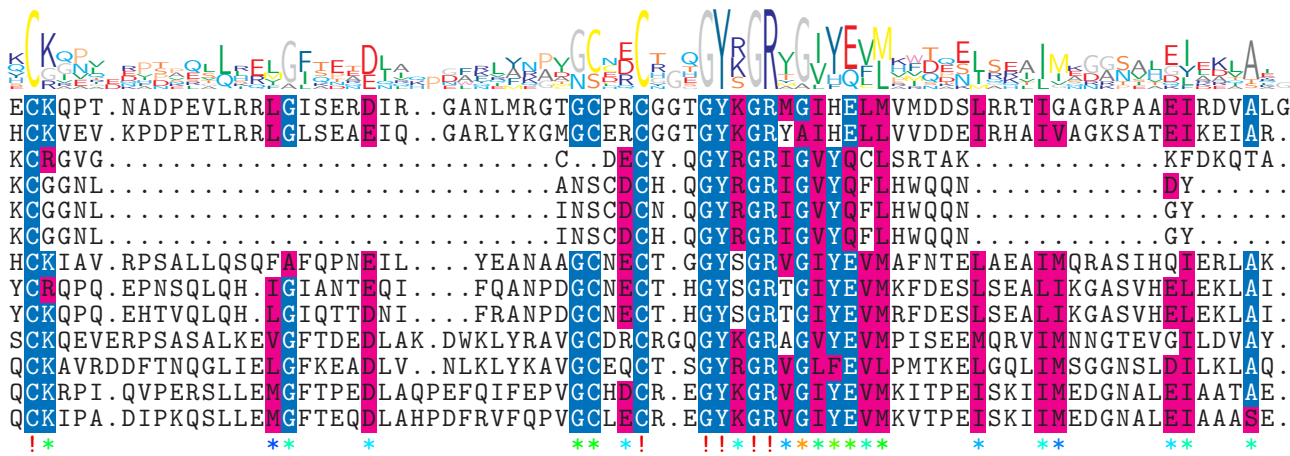
|           |    |         |         |         |            |             |
|-----------|----|---------|---------|---------|------------|-------------|
| NTDB      | id | 1306    | DR      | RS10060 | WP         | 027479822.1 |
| NTDB      | id | 1028    | TT      | RS08215 | WP         | 011173991.1 |
| NTDB      | id | 1384    | A4U84   | RS08525 | WP         | 010787006.1 |
| NTDB      | id | 1355    | HI      | 0298    | AAC21962.1 |             |
| NTDB      | id | 1126751 | FGK83   | RS03710 | WP         | 138171687.1 |
| NTDB      | id | 1366    | NTHI    | RS01950 | WP         | 011271972.1 |
| 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 |
| consensus |    |         |         |         |            |             |



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| 779 |
| 782 |
| 393 |
| 398 |
| 398 |
| 398 |
| 458 |
| 458 |
| 458 |
| 449 |
| 467 |
| 462 |
| 462 |

logo

|           |    |         |         |         |            |             |
|-----------|----|---------|---------|---------|------------|-------------|
| NTDB      | id | 1306    | DR      | RS10060 | WP         | 027479822.1 |
| NTDB      | id | 1028    | TT      | RS08215 | WP         | 011173991.1 |
| NTDB      | id | 1384    | A4U84   | RS08525 | WP         | 010787006.1 |
| NTDB      | id | 1355    | HI      | 0298    | AAC21962.1 |             |
| NTDB      | id | 1126751 | FGK83   | RS03710 | WP         | 138171687.1 |
| NTDB      | id | 1366    | NTHI    | RS01950 | WP         | 011271972.1 |
| 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 |
| consensus |    |         |         |         |            |             |



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| 856 |
| 858 |
| 429 |
| 431 |
| 431 |
| 431 |
| 531 |
| 530 |
| 530 |
| 527 |
| 543 |
| 539 |
| 539 |

logo

|           |    |         |         |         |            |             |
|-----------|----|---------|---------|---------|------------|-------------|
| NTDB      | id | 1306    | DR      | RS10060 | WP         | 027479822.1 |
| NTDB      | id | 1028    | TT      | RS08215 | WP         | 011173991.1 |
| NTDB      | id | 1384    | A4U84   | RS08525 | WP         | 010787006.1 |
| NTDB      | id | 1355    | HI      | 0298    | AAC21962.1 |             |
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| NTDB      | id | 1366    | NTHI    | RS01950 | WP         | 011271972.1 |
| 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 |
| consensus |    |         |         |         |            |             |



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| 887 |
| 889 |
| 461 |
| 464 |
| 464 |
| 464 |
| 562 |
| 561 |
| 561 |
| 558 |
| 574 |
| 570 |
| 570 |

 non conserved  
 similar  
  $\geq 50\%$  conserved