

logo

|                                             |  |                                                                                   |    |
|---------------------------------------------|--|-----------------------------------------------------------------------------------|----|
|                                             |  | MSXLSIGDRRLGAALLDQGYLDNBLQRALERHREVGGSLAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPVKV   | 0  |
| NTDB id 1410 SGL RS13950 WP 010873519.1     |  | .....                                                                             |    |
| NTDB id 1028 TT RS08215 WP 011173991.1      |  | MSVLTIGDKRLGAALLDAGLLTDEELQRALERHREVGGSLAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPVKV  | 80 |
| NTDB id 1306 DR RS10060 WP 027479822.1      |  | .MALSIGDRRLGAILLDQGYLGDNLDLQRALERHSEVGGRLADVLLIDSGMVGEKRIARAIEEALGIPLVNLAVQPDPAAL | 79 |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    |  | .....                                                                             | 0  |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 |  | .....                                                                             | 0  |
| NTDB id 1293 VP RS12240 WP 005479695.1      |  | .....                                                                             | 0  |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   |  | .....                                                                             | 0  |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   |  | .....                                                                             | 0  |
| NTDB id 136990 Achr RS15340 WP 039805681.1  |  | .....                                                                             | 0  |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    |  | .....                                                                             | 0  |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   |  | .....                                                                             | 0  |
| consensus                                   |  |                                                                                   |    |

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|                                             |  | SLTPAEKAKELRAIPFALDEEAGVVRVAFLNPLDLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPP.P   | 0   |
| NTDB id 1410 SGL RS13950 WP 010873519.1     |  | ALLPAEKAKELKAIPFALDEEAGVVRVAFLNPLDLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPP..P  | 158 |
| NTDB id 1028 TT RS08215 WP 011173991.1      |  | RSIRPQTALNLQAFPFALE..GDRLRVALVDPLSSFSIETLEDDSGFDIEPYQALREEVMWAIATHYPELGLEIVVPSGA | 157 |
| NTDB id 1306 DR RS10060 WP 027479822.1      |  | .....                                                                            | 0   |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    |  | .....                                                                            | 0   |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 |  | .....                                                                            | 0   |
| NTDB id 1293 VP RS12240 WP 005479695.1      |  | .....                                                                            | 0   |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   |  | .....                                                                            | 0   |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   |  | .....                                                                            | 0   |
| NTDB id 136990 Achr RS15340 WP 039805681.1  |  | .....                                                                            | 0   |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    |  | .....                                                                            | 0   |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   |  | .....                                                                            | 0   |
| consensus                                   |  |                                                                                  |     |

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|---------------------------------------------|--|---------------------------------------------------------------------------------|-----|
|                                             |  | SGEGQKDLKLGELLQKGWISREALEEALVEQEKTGDLLGRILV.RKGLPEEALYRALAEQKGLEFLESTEGIVPDPSAA | 0   |
| NTDB id 1410 SGL RS13950 WP 010873519.1     |  | SDAGRTGGKLGERLITHGYITDAQLQVALDAQQTGEALGATLISQRAITEDQLYEVLAEQEGTTFLPNPSGFHPGEEVL | 237 |
| NTDB id 1028 TT RS08215 WP 011173991.1      |  | .....                                                                           | 237 |
| NTDB id 1306 DR RS10060 WP 027479822.1      |  | .....                                                                           | 0   |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    |  | .....                                                                           | 0   |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 |  | .....                                                                           | 0   |
| NTDB id 1293 VP RS12240 WP 005479695.1      |  | .....                                                                           | 0   |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   |  | .....                                                                           | 0   |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   |  | .....                                                                           | 0   |
| NTDB id 136990 Achr RS15340 WP 039805681.1  |  | .....                                                                           | 0   |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    |  | .....                                                                           | 0   |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   |  | .....                                                                           | 0   |
| consensus                                   |  |                                                                                 |     |

|                                             |                                                                                     |     |
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| 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      | GSMLRADALRL LAVPVDETEQGVTVLTS DPRKRPDIDALIGRPVQLMLTRPRDIERLIEQFYPPQRGRLGEQLVQEGTLRS | 317 |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | .....                                                                               | 0   |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | .....                                                                               | 0   |
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| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | .....                                                                               | 0   |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                                                               | 0   |
| NTDB id 136990 Achr RS15340 WP 039805681.1  | .....                                                                               | 0   |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                                                               | 0   |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | .....                                                                               | 0   |
| consensus                                   |                                                                                     |     |

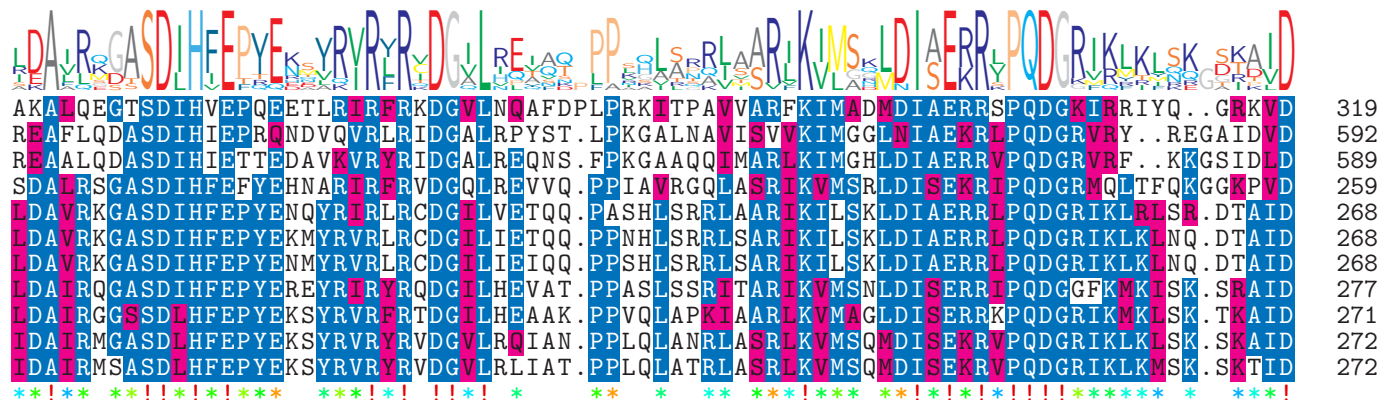
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|------|----|--------|---------|---------|----|-------------|----------|----|----|------|----|----|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|----|---|---|----|---|----|----|----|----|---|---|---|---|-------|----|---|---|-------|---|-------|-------|-------|-------|---|----|---|-------|-------|-------|----|---|---|---|----|-----|----|
| NTDB | id | 1410   | SGL     | RS13950 | WP | 010873519.1 | SSSSKKSR | AV | AL | RNYF | S  | P  | F | G | N | K | L | V | A | G | H | V | D   | A | E | Q | L | R | Q | A | L | V | Q | V  | K | T | G | R | S | L  | P | E | E  | L | K  | A  | V  | T  | G | R | E | L | S     | P  | E | L | R     | Q | Y     | K     | K     | N     | Q | L  | F | E     | L     | K     | V  | L | Y |   | 83 |     |    |
| NTDB | id | 1028   | TT      | RS08215 | WP | 011173991.1 | EALKEA   | LE | VQ | KGL  | PR | AK | P | L | G | E | T | L | V | E | L | G | L   | A | R | P | E | D | V | E | E | A | L | Q  | K | Q | R | G | G | R  | L | E | D  | T | L  | V  | .. | Q  | S | G | K | L | R     | P  | E | A | L     | A | Q     | A     | ..... | V     | A | T  | Q | L     |       | 388   |    |   |   |   |    |     |    |
| NTDB | id | 1306   | DR      | RS10060 | WP | 027479822.1 | DQLREAL  | Q  | V  | Q    | A  | R  | E | G | K | V | K | P | L | G | E | V | I   | T | E | L | G | F | A | S | P | D | E | V  | D | S | A | L | Q | K  | Q | N | V  | G | G  | R  | L  | E  | D | T | L | V | ..    | Q  | S | G | K     | L | S     | P     | E     | M     | L | A  | R | S     | ..... | L     | A  | A | Q | L |    | 388 |    |
| NTDB | id | 1110   | NGFG    | RS09235 | WP | 003689817.1 | .....    | M  | S  | V    | G  | L  | L | R | I | L | V | Q | N | Q | V | V | T   | V | E | Q | A | E | H | Y | N | E | S | .. | Q | A | G | E | V | L  | P | M | L  | F | .. | S  | D  | G  | V | I | S | P | K     | S  | L | A | A     | L | ..... | I     | A     | R     | V | F  |   | 56    |       |       |    |   |   |   |    |     |    |
| NTDB | id | 1168   | A1552VC | RS11070 | WP | 000957200.1 | .....    | M  | L  | T    | N  | L  | V | A | L | R | Q | A | E | L | I | S | A   | T | Q | E | A | V | T | Q | V | S | A | S  | T | P | E | A | L | .. | E | L | S  | I | F  | H  | A  | E  | L | T | E | Q | ..... | L  | S | H | I     | F |       | 57    |       |       |   |    |   |       |       |       |    |   |   |   |    |     |    |
| NTDB | id | 1293   | VP      | RS12240 | WP | 005479695.1 | .....    | M  | H  | S    | N  | L  | T | T | L | R | Q | K | L | T | S | F | S   | Q | E | S | L | I | E | Q | V | K | A | S  | G | I | S | M | P | E  | A | L | .. | S | S  | G  | F  | F  | T | S | S | E | L     | A  | E | H | ..... | L | S     | S     | I     | F     |   | 57 |   |       |       |       |    |   |   |   |    |     |    |
| NTDB | id | 1401   | DSB67   | RS12665 | WP | 010643259.1 | .....    | M  | L  | T    | N  | L  | S | T | V | L | R | Q | A | G | I | L | T   | S | F | S | Q | E | S | L | L | E | Q | V  | K | A | S | G | I | S  | M | P | E  | A | L  | .. | S  | S  | G | F | F | Q | S     | H  | E | L | T     | E | H     | ..... | L     | S     | S | V  | F |       | 57    |       |    |   |   |   |    |     |    |
| NTDB | id | 1251   | GC085   | RS07725 | WP | 011946523.1 | .....    | M  | A  | L    | A  | T  | E | E | Y | R | L | Q | G | I | G | L | L   | V | L | E | K | L | L | D | K | T | K | A  | I | E | L | H | K | L  | A | A | A  | E | K  | I  | S  | L  | L | Q | Y | I | V     | .. | K | N | K     | I | L     | S     | A     | E     | Q | I  | A | L     | T     | ..... | A  | A | Q | N | F  |     | 65 |
| NTDB | id | 136990 | Achr    | RS15340 | WP | 039805681.1 | .....    | M  | S  | N    | D  | I  | S | L | P | G | L | A | R | Q | V | L | A   | G | L | I | D | E | K | T | A | Q | Q | A  | A | Q | R | N | Q | T  | P | L | V  | T | W  | L  | V  | .. | Q | N | K | L | V     | K  | S | R | A     | L | A     | E     | L     | ..... | A | A  | E | Q     | F     |       | 62 |   |   |   |    |     |    |
| NTDB | id | 1058   | ABD1    | RS01615 | WP | 001274986.1 | .....    | M  | S  | A    | L  | H  | T | S | P | K | F | T | G | F | R | R | L   | V | E | E | K | H | V | S | A | A | T | M  | Q | T | A | L | D | A  | A | K | R  | A | K  | Q  | D  | T  | V | A | Y | L | ..    | E  | E | V | H     | L | S     | P     | S     | L     | A | E  | T | ..... | I     | S     | A  | E | F |   | 65 |     |    |
| NTDB | id | 1018   | ACIAD   | RS01685 | WP | 004920473.1 | .....    | M  | S  | A    | F  | T  | T | P | P | K | F | S | G | F | I | R | L</ |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |    |   |    |    |    |    |   |   |   |   |       |    |   |   |       |   |       |       |       |       |   |    |   |       |       |       |    |   |   |   |    |     |    |

|      |    |        |         |         |    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |     |   |   |     |     |
|------|----|--------|---------|---------|----|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|-----|---|---|-----|-----|
| NTDB | id | 1410   | SGL     | RS13950 | WP | 010873519.1 | G | V | D | S | V | D | E | V | A | P | I | A | T | Q | Q | M | A | E | I | G | R | F | F | L | D | T | C | R | R | F | K | F | L | P | L | A | Q | Q | E | G | D | P | P | S | V | L | V | A | M | V | D | P | N | L | A | Q | D | E | L | N | R | I | L | R | V | K | G | . | . | F | E | L | R | R | L | 161 |   |   |   |     |   |   |     |     |
| NTDB | id | 1028   | TT      | RS08215 | WP | 011173991.1 | G | P | Y | V | D | E | E | D | P | P | D | . | . | . | . | . | . | . | . | . | G | A | P | L | L | P | E | D | L | C | R | R | Y | G | V | F | P | H | R | L | E | G | . | . | . | N | R | L | V | L | M | K | D | P | R | N | I | L | A | L | D | D | V | R | L | A | L | K | R | K | G | L | N | Y | E | V   | A | P | A | 460 |   |   |     |     |
| NTDB | id | 1306   | DR      | RS10060 | WP | 027479822.1 | G | Y | E | F | L | D | P | I | Q | N | P | P | D | . | . | . | . | . | . | . | K | V | A | L | M | I | P | E | A | T | A | R | R | Y | V | V | V | P | V | R | L | Q | G | . | . | . | N | S | L | V | V | A | M | K | D | P | R | N | V | F | A | L | D | D | L | K | L | I | T | G | . | . | . | . | . | .   | K | E | T | L   | P | A | 455 |     |
| NTDB | id | 1110   | NGFG    | RS09235 | WP | 003689817.1 | S | Y | S | I | L | D | L | R | H | Y | P | R | H | . | . | . | . | . | . | . | V | L | M | G | V | L | T | E | E | Q | M | V | E | F | H | C | V | P | V | F | R | R | G | . | . | . | D | K | V | F | F | A | V | S | D | P | T | Q | M | P | Q | I | Q | K | T | V | S | A | A | G | . | . | . | . | . | .   | I | A | V | E   | L | V | 123 |     |
| NTDB | id | 1168   | A1552VC | RS11070 | WP | 000957200.1 | G | L | P | E | T | D | L | S | R | Y | D | Y | A | N | . | . | . | . | . | . | . | L | C | Q | Q | L | G | L | R | E | L | I | T | R | Y | D | A | L | P | I | A | K | Q | G | . | . | . | N | L | L | L | A | V | S | D | P | T | L | L | Q | A | E | E | D | F | R | F | A | T | G | . | . | . | . | . | .   | L | Q | V | E   | L | A | 124 |     |
| NTDB | id | 1293   | VP      | RS12240 | WP | 005479695.1 | G | L | S | Q | E | L | S | Q | V | E | Y | A | S | . | . | . | . | . | . | . | L | C | Q | Q | L | G | L | R | E | L | I | T | R | H | N | A | L | P | L | H | R | T | . | . | . | S | T | L | L | A | V | A | D | P | T | N | Q | A | E | E | D | F | R | F | A | T | G | . | . | . | . | . | . | L | Q | V   | E | L | A | 124 |   |   |     |     |
| NTDB | id | 1401   | DSB67   | RS12665 | WP | 010643259.1 | G | L | S | C | T | S | L | N | Q | V | E | Y | A | S | . | . | . | . | . | . | . | L | C | Q | T | L | G | L | R | D | L | I | T | R | H | N | A | L | P | L | N | R | T | S | . | . | . | S | T | L | I | L | A | V | A | D | P | T | N | L | Q | A | E | E | D | F | R | F | A | T | G | . | . | . | . | .   | . | L | Q | V   | E | L | A   | 124 |
| NTDB | id | 1251   | GC085   | RS07725 | WP | 011946523.1 | G | V | P | M | L | D | I | N | C | I | D | V | G | T | . | . | . | . | . | . | . | I | P | V | N | L | V | N | E | K | L | I | K | R | H | A | M | V | P | L | F | S | R | G | . | . | . | T | N | L | Y | L | A | T | D | P | S | K | Q | A | S | L | K | E | I | Q | F | H | T | G | . | . | . | . | . | .   | L | N | T | H   | A | I | 132 |     |
| NTDB | id | 136990 | Achr    | RS15340 | WP | 039805681.1 | G | I | A | L | F | D | L | K | T | L | D | R | E | S | . | . | . | . | . | . | . | Q | P | R | D | L | L | S | E | K | L | I | R | Q | H | R | A | L | P | L | W | R | R | G | . | . | . | N | R | L | F | V | A |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |     |   |   |     |     |

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consensus



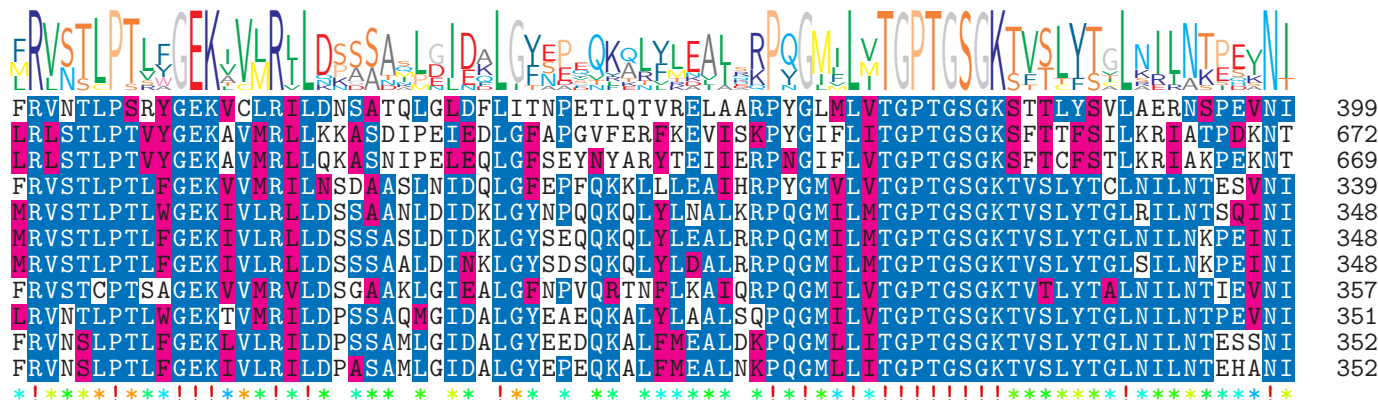
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NTDB id 1018 ACIAD RS01685 WP 004920473.1
consensus

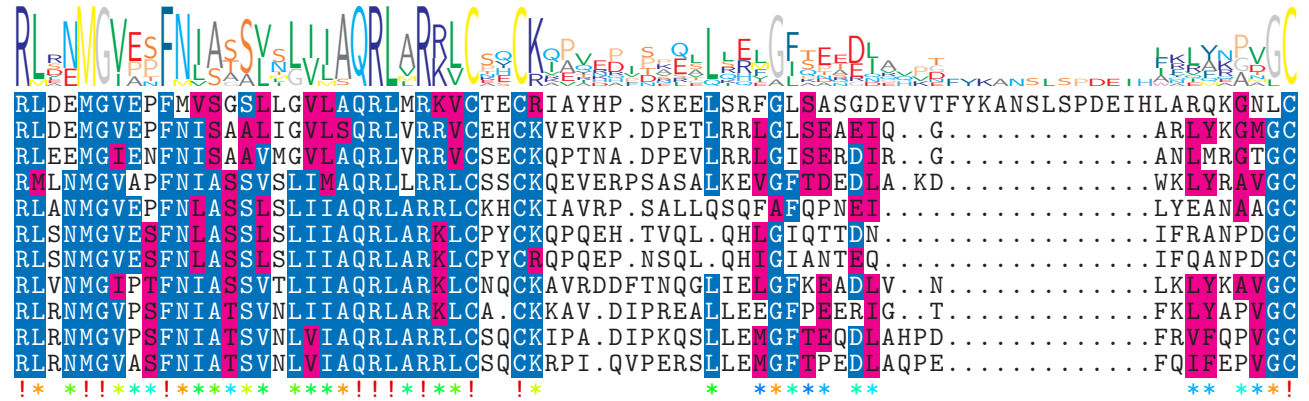
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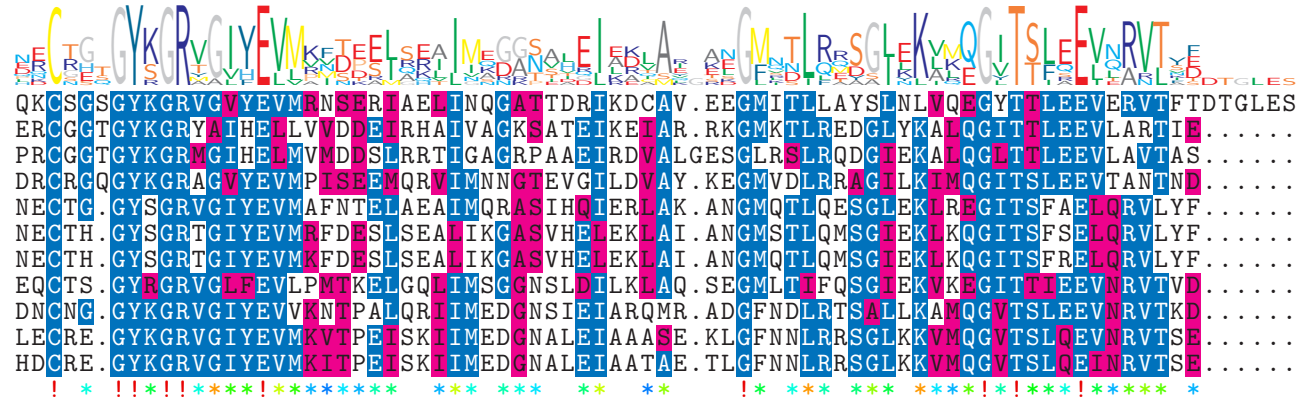
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NTDB id 1251 GC085 RS07725 WP 011946523.1
NTDB id 136990 Achr RS15340 WP 039805681.1
NTDB id 1058 ABD1 RS01615 WP 001274986.1
NTDB id 1018 ACIAD RS01685 WP 004920473.1
consensus

```



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 1110 NGFG RS09235 WP 003689817.1    | .....                                | 558 |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | .....                                | 562 |
| NTDB id 1293 VP RS12240 WP 005479695.1      | .....                                | 561 |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | .....                                | 561 |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                | 574 |
| NTDB id 136990 Achr RS15340 WP 039805681.1  | .....                                | 566 |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                | 570 |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | .....                                | 570 |
| consensus                                   |                                      |     |

-  non conserved
-  similar
-  ≥ 50% conserved