

logo

NTDB id 1028 TT RS08215 WP 011173991.1	MSVLTIGDKRLGAALLDAGLLTDEELQRALERHREVGGS LAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPKVK	80
NTDB id 1306 DR RS10060 WP 027479822.1	.MALSIGDRRLGAILLDQGYLGDNLDLQRALERHSEVGGRLADV LIDSGMVGEKRIARAIEEALGIPLVNL LAVQPDP AAL	79
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1	.....	0
NTDB id 1410 SGL RS13950 WP 010873519.1	.....	0
NTDB id 1355 HI 0298 AAC21962.1	.....	0
NTDB id 1366 NTHI RS01950 WP 011271972.1	.....	0
NTDB id 1384 A4U84 RS08525 WP 010787006.1	.....	0
NTDB id 1468 ASU2 RS05090 WP 014991734.1	.....	0
NTDB id 53220 L6447 RS21260 WP 004145935.1	.....	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 1028 TT RS08215 WP 011173991.1	ALLPAEKAKELKAIPFALDEEAGVVRVAF LNPLDTLSLEEVEDLTGLVVEPYQT TKS AFLYALAKHYPELG LPVPPP..P	158
NTDB id 1306 DR RS10060 WP 027479822.1	RSIRPQTALNLQAFPPFALE..GDRLRVALVDPLSSFSIETLEDDSGFDIEPYQALREEVMWAIATHYPELGLEIVVPSGA	157
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1	.....	0
NTDB id 1410 SGL RS13950 WP 010873519.1	.....	0
NTDB id 1355 HI 0298 AAC21962.1	.....	0
NTDB id 1366 NTHI RS01950 WP 011271972.1	.....	0
NTDB id 1384 A4U84 RS08525 WP 010787006.1	.....	0
NTDB id 1468 ASU2 RS05090 WP 014991734.1	.....	0
NTDB id 53220 L6447 RS21260 WP 004145935.1	.....	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 1028 TT RS08215 WP 011173991.1	SGEGQKDKLKLGE LLLQKGWISREALEEALVEQEKTGDLLGRILV.RKGLPEEALYRALAEQKGLEFLESTEGIVPDPSAA	237
NTDB id 1306 DR RS10060 WP 027479822.1	SDAGRTGGKLG ER LITHGYITDAQLQVALDAQQTGEALGATLISQRAITEDQLYEVLAEQEGTTFLPNPSGFGHPGEEVL	237
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1	.....	0
NTDB id 1410 SGL RS13950 WP 010873519.1	.....	0
NTDB id 1355 HI 0298 AAC21962.1	.....	0
NTDB id 1366 NTHI RS01950 WP 011271972.1	.....	0
NTDB id 1384 A4U84 RS08525 WP 010787006.1	.....	0
NTDB id 1468 ASU2 RS05090 WP 014991734.1	.....	0
NTDB id 53220 L6447 RS21260 WP 004145935.1	.....	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 1028 TT RS08215 WP 011173991.1	LLLLRSDALRYGAVPIGFQNGEVEVVLSDPRHKEAVAQLLNRPARFY LALPQAWHEELFRRAYPQKNRLGEVLVQEGKLSR	317
NTDB id 1306 DR RS10060 WP 027479822.1	GSMLRADALRLLAVPVDETEQGVTVLTS DPRKRPDIDALIGRPVQLMLTRPDIERLIEQFYPQRGR LGEQLVQEGT LSR	317
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1	.....	0
NTDB id 1410 SGL RS13950 WP 010873519.1	MTS	3
NTDB id 1355 HI 0298 AAC21962.1	.....	0
NTDB id 1366 NTHI RS01950 WP 011271972.1	.....	0
NTDB id 1384 A4U84 RS08525 WP 010787006.1	.....	0
NTDB id 1468 ASU2 RS05090 WP 014991734.1	.....	0
NTDB id 53220 L6447 RS21260 WP 004145935.1	.....	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 1028	TT RS08215 WP 011173991.1	EALKEALEVQKGLPRAKPLGEIIVELGLARPEDVEEALQKQRRGGGRLEDTVQS..GKLR.PEALQAQ.....V	384
NTDB id 1306	DR RS10060 WP 027479822.1	DQLREALQVQAREGKVKPLGEVITELGFASPDEVDLSALQKQNVGGGRLEDTVQS..GKLS.PEMLARS.....L	384
NTDB id 1227	CJJ81176 RS07050 WP 011812800.1	ME.....SRMDKIFQAYIDN...EISLDEICTKFNITSWDFFKKL	37
NTDB id 1410	SGL RS13950 WP 010873519.1	SSSSKKSRAVALRNYFSPFGNKIVAGGHVDAEQLRQALVQVKKTGRSPPEELKAVTGREISS.PELTRQYKKN..QLFE..L	79
NTDB id 1355	HI 0298 AAC21962.1	MTSY.....ALLH.TQRVTAK.....N	16
NTDB id 1366	NTHI RS01950 WP 011271972.1	MTSY.....ALLH.TQRVTAQ.....N	16
NTDB id 1384	A4U84 RS08525 WP 010787006.1	MSQY.....T.....ICEQQ.....T	11
NTDB id 1468	ASU2 RS05090 WP 014991734.1	MQY.....S.....VCDMN.....S	10
NTDB id 53220	L6447 RS21260 WP 004145935.1	.....	0
NTDB id 1436	BW25113 RS00530 WP 001025145.1	.....	0
NTDB id 1168	A1552VC RS11070 WP 000957200.1	MLTNLVAIRQAELISATQEQAVVTQVSASGTSVPEALLLEL..SIFH.AQEITEQ.....L	53
NTDB id 1401	DSB67 RS12665 WP 010643259.1	MLTNLSTVIRQAGILTFSSQEESLLEQVKASGISMPEALLSS..GFFQ.SHEITEH.....L	53
NTDB id 1293	VP RS12240 WP 005479695.1	MHSNLSTIRQKGLLTFSQEESLIEQVKASGISMPEALLSS..GFFT.SSELAEH.....L	53
NTDB id 1110	NGFG RS09235 WP 003689817.1	MSVGLLRILVQNQVVTVVEQAHHYY.NESQAGKEVLPMIFSD..GVIS.PKSLAAL.....I	52
NTDB id 1251	GCO85 RS07725 WP 011946523.1	MALATEEYRLQGIGQLIVLEKLLDKTKAIELHKLAAAEKISLLQYIVKN..KILS.AEQIALT.....A	61
NTDB id 1018	ACIAD RS01685 WP 004920473.1	MSAFTTPPKFSGFIRRIVEEGYVNAQNMQQALEKAKKFKQDVPYILIDN..FSIS.PLTIAEI.....I	61
NTDB id 1058	ABD1 RS01615 WP 001274986.1	MSALHTSPKFTGFFRRIVEEKHVSAAATMQTALDAAKRAKQDTVAYLIEE..VHLS.PSLIAET.....I	61
consensus		*.....*	

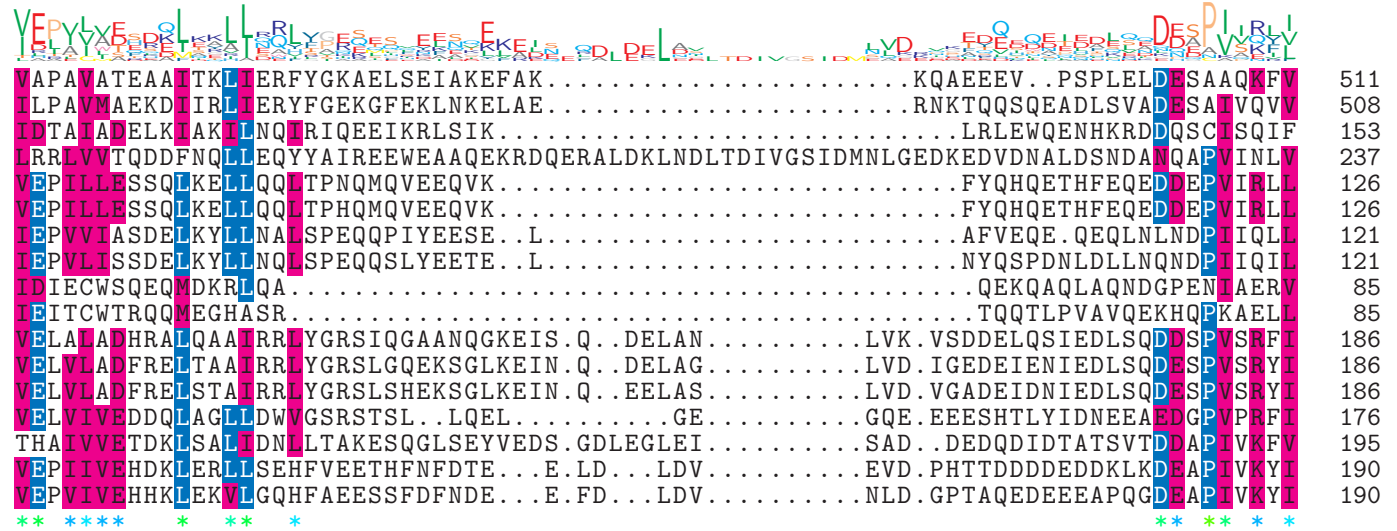
logo

NTDB id 1028	TT RS08215 WP 011173991.1	ATQLGYPYVDPEEDPP....DPGAPLLLPEDLCRRYGVFPHRLEG...NRIIVILMKDPRNIALLDVRLALKRKGLNVE	456
NTDB id 1306	DR RS10060 WP 027479822.1	AAQLGYEFLDPIQNPP....DPKVALMIPEATARRVVVVRRLQG...NSLVVAMKDPRNVFALDDKLITG....KE	451
NTDB id 1227	CJJ81176 RS07050 WP 011812800.1	ANFCNLHFVDLDE.....DNDFIYEGIPFSLILKFKFLLKNND...GFMIRSKPCSLELLEQVKTF..MIC..EK	102
NTDB id 1410	SGL RS13950 WP 010873519.1	KVLVGVDSVDPEVAPIATQQMAELIGRFFPLDTCRRFKFLPLAQQEGDPPSVLVAMVDPDNLAAQDELNRILRVKG..FE	157
NTDB id 1355	HI 0298 AAC21962.1	GEVF.....T...ISP....DLWERNQQQSSLLRLRYFALPLKEEN...NRLWLGVDLSLSNISACETIAF...ITG..KP	75
NTDB id 1366	NTHI RS01950 WP 011271972.1	GEIF.....T...ISP....DLWERNQQQSSLLRLRYFALPLKEEN...NRLWLGVDLSLSNISACETIAF...ITG..KP	75
NTDB id 1384	A4U84 RS08525 WP 010787006.1	ERIF.....D...ISP....SRWQKNCEEKQLLLRYLAVPVQETE...HKLWLAVDDENNITACEIFAF...MTH..KQ	70
NTDB id 1468	ASU2 RS05090 WP 014991734.1	QQVF.....D...ISE....SLWQKNCDEKHLRLRYLATPIQEND...DTLWLATDDMNNLSACEIFAF...IAH..KT	69
NTDB id 53220	L6447 RS21260 WP 004145935.1	MKTEQLIPLCRRYHAMLHHSDE...QTISIADVNTPPAELMEARF...ATQ..KR	48
NTDB id 1436	BW25113 RS00530 WP 001025145.1	MNIPQLTALCLRYHGVLLDASE...EVVHVAVVDAPSHELLDALHF...ATT..KR	48
NTDB id 1168	A1552VC RS11070 WP 000957200.1	SHIFGLPETDLSTRYDY....ANLCQQLGLRELITRYDALPLAKQG...NLALLAVSDPTLLQAEEFEFRF...ATG..LQ	120
NTDB id 1401	DSB67 RS12665 WP 010643259.1	SSVFGLSCTSLNQYEY....ASLCQTLGLRDLITRHNALPLNRTS...STLILAVADPTNLQAEDDFRF...ATG..LQ	120
NTDB id 1293	VP RS12240 WP 005479695.1	SSIFGLSQPELSQYEY....ASLCQQLGLRELITRHNALPLHRTS...STLILAVADPTNLQAEDDFRF...ATG..LQ	120
NTDB id 1110	NGFG RS09235 WP 003689817.1	ARVFSYSILDLRHYPR....HRVLMGVLTEEQMVVHCVPVFRRG...DKVFFAVSDPTQMPQIQKTVS...AAG..IA	119
NTDB id 1251	GCO85 RS07725 WP 011946523.1	AQNFGVPMLDINCIDV....GTIPVNLVNEKLIKRRHAMVPLFSRG...TNLYLATDPSKQASLKEIQF...HTG..LN	128
NTDB id 1018	ACIAD RS01685 WP 004920473.1	SLEFGEPLLDLGVFDP....ALFLKDKIDEKLIKQYRIMPLVHRG...HVLVYVATSNPTNTEAMDAIRF...NSK..LK	128
NTDB id 1058	ABD1 RS01615 WP 001274986.1	SAEFAEYPFDLDVYDT....SQIPKDLVDQKLIKLRHILPLIQRG...QILYVATSNPSNIBATDAIRF...NSK..LL	128
consensus		*.....*	

```

NTDB id 1028 TT RS08215 WP 011173991.1
NTDB id 1306 DR RS10060 WP 027479822.1
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1
NTDB id 1410 SGL RS13950 WP 010873519.1
NTDB id 1355 HI 0298 AAC21962.1
NTDB id 1366 NTHI RS01950 WP 011271972.1
NTDB id 1384 A4U84 RS08525 WP 010787006.1
NTDB id 1468 ASU2 RS05090 WP 014991734.1
NTDB id 53220 L6447 RS21260 WP 004145935.1
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
consensus

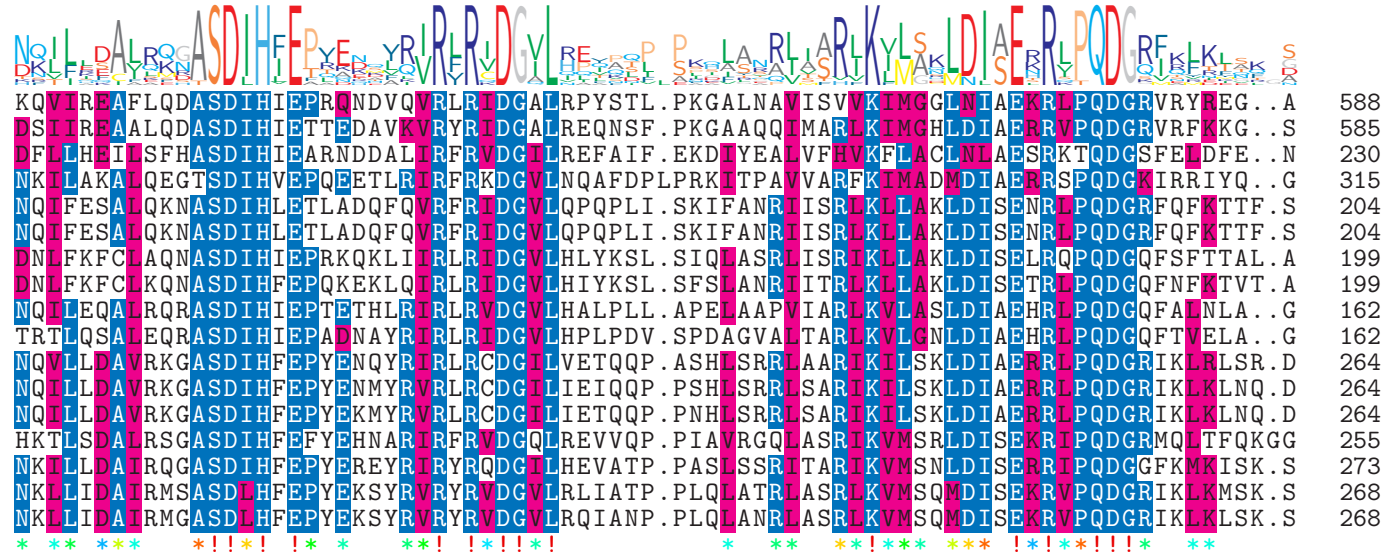
```



```

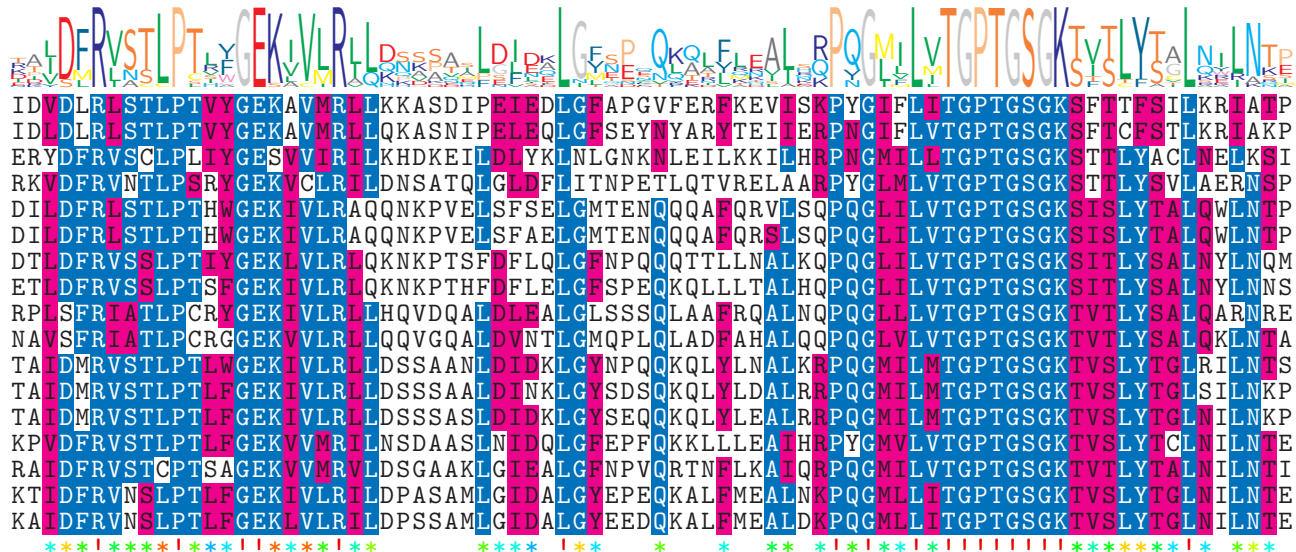
NTDB id 1028 TT RS08215 WP 011173991.1
NTDB id 1306 DR RS10060 WP 027479822.1
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1
NTDB id 1410 SGL RS13950 WP 010873519.1
NTDB id 1355 HI 0298 AAC21962.1
NTDB id 1366 NTHI RS01950 WP 011271972.1
NTDB id 1384 A4U84 RS08525 WP 010787006.1
NTDB id 1468 ASU2 RS05090 WP 014991734.1
NTDB id 53220 L6447 RS21260 WP 004145935.1
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
consensus

```



```
NTDB id 1028 TT RS08215 WP 011173991.1
NTDB id 1306 DR RS10060 WP 027479822.1
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1
NTDB id 1410 SGL RS13950 WP 010873519.1
NTDB id 1355 HI 0298 AAC21962.1
NTDB id 1366 NTHI RS01950 WP 011271972.1
NTDB id 1384 A4U84 RS08525 WP 010787006.1
NTDB id 1468 ASU2 RS05090 WP 014991734.1
NTDB id 53220 L6447 RS21260 WP 004145935.1
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
```

consensus



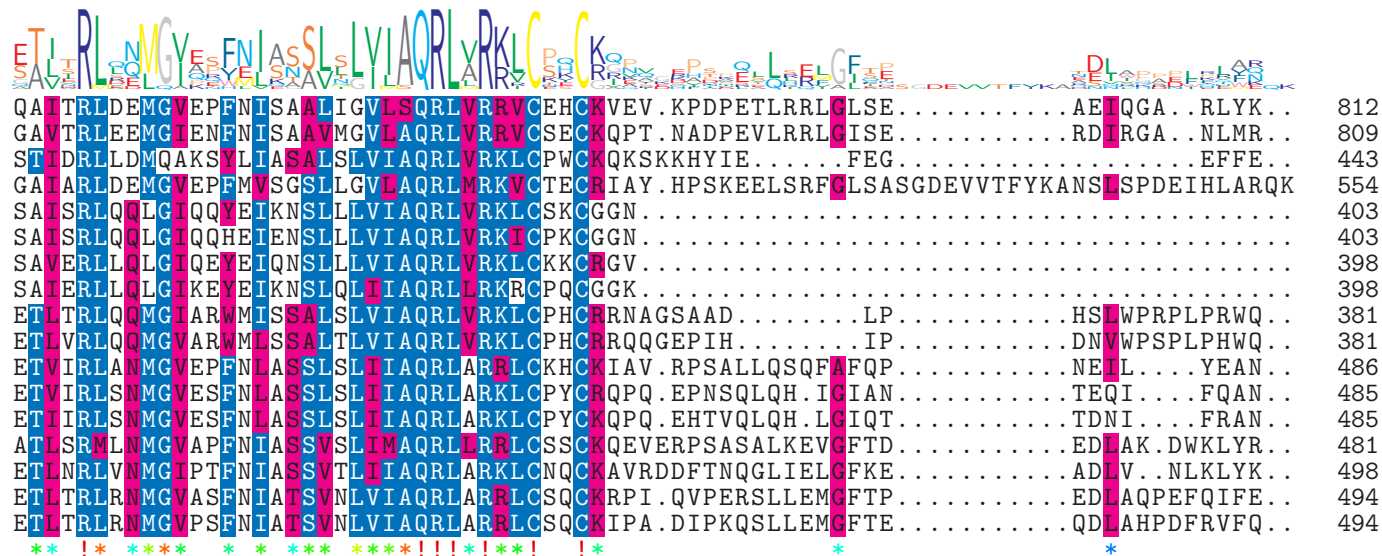
```
NTDB id 1028 TT RS08215 WP 011173991.1
NTDB id 1306 DR RS10060 WP 027479822.1
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1
NTDB id 1410 SGL RS13950 WP 010873519.1
NTDB id 1355 HI 0298 AAC21962.1
NTDB id 1366 NTHI RS01950 WP 011271972.1
NTDB id 1384 A4U84 RS08525 WP 010787006.1
NTDB id 1468 ASU2 RS05090 WP 014991734.1
NTDB id 53220 L6447 RS21260 WP 004145935.1
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
```

consensus



```
NTDB id 1028 TT RS08215 WP 011173991.1
NTDB id 1306 DR RS10060 WP 027479822.1
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1
NTDB id 1410 SGL RS13950 WP 010873519.1
NTDB id 1355 HI 0298 AAC21962.1
NTDB id 1366 NTHI RS01950 WP 011271972.1
NTDB id 1384 A4U84 RS08525 WP 010787006.1
NTDB id 1468 ASU2 RS05090 WP 014991734.1
NTDB id 53220 L6447 RS21260 WP 004145935.1
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 00492473.1
NTDB id 1058 ABD1 RS01615 WP 001274986.1
```

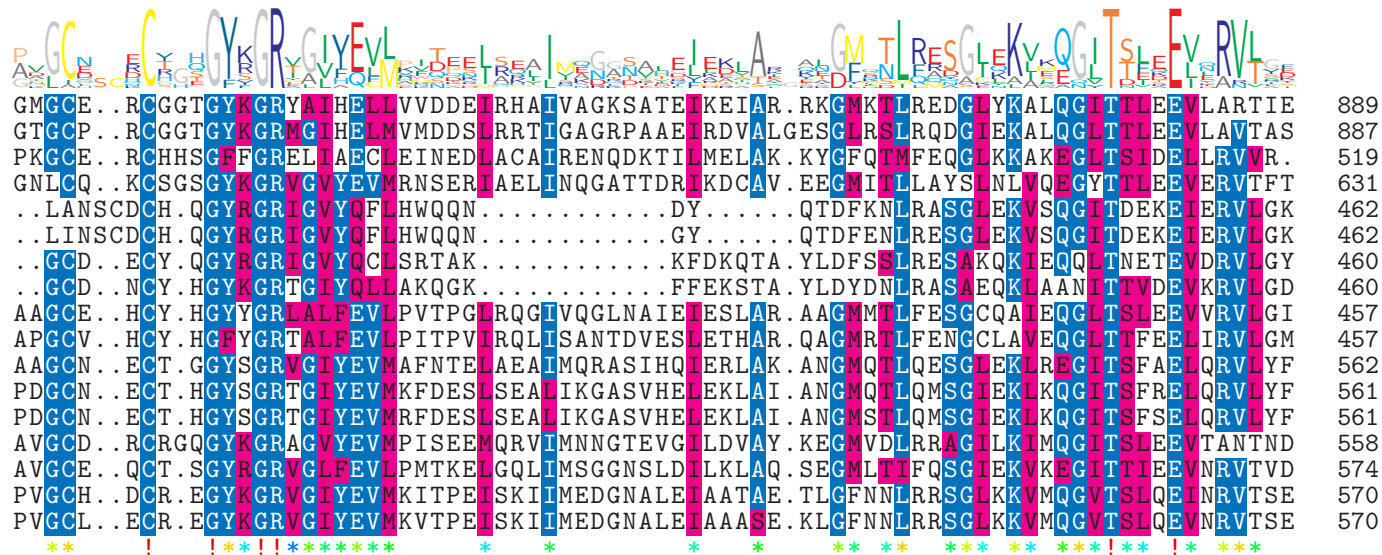
consensus



logo

```
NTDB id 1028 TT RS08215 WP 011173991.1
NTDB id 1306 DR RS10060 WP 027479822.1
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1
NTDB id 1410 SGL RS13950 WP 010873519.1
NTDB id 1355 HI 0298 AAC21962.1
NTDB id 1366 NTHI RS01950 WP 011271972.1
NTDB id 1384 A4U84 RS08525 WP 010787006.1
NTDB id 1468 ASU2 RS05090 WP 014991734.1
NTDB id 53220 L6447 RS21260 WP 004145935.1
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
```

consensus



logo

NTDB id 1028 TT RS08215 WP 011173991.1	.....	889
NTDB id 1306 DR RS10060 WP 027479822.1	.....	887
NTDB id 1227 CJJ81176 RS07050 WP 011812800.1	.....	519
NTDB id 1410 SGL RS13950 WP 010873519.1	DTGLESEMRAKRKSALTTCRTCAAELQQEWLDCPYCMTSRFS	672
NTDB id 1355 HI 0298 AAC21962.1	NL.....	464
NTDB id 1366 NTHI RS01950 WP 011271972.1	NS.....	464
NTDB id 1384 A4U84 RS08525 WP 010787006.1	E.....	461
NTDB id 1468 ASU2 RS05090 WP 014991734.1	G.....	461
NTDB id 53220 L6447 RS21260 WP 004145935.1	PHGD.....	461
NTDB id 1436 BW25113 RS00530 WP 001025145.1	PHGE.....	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