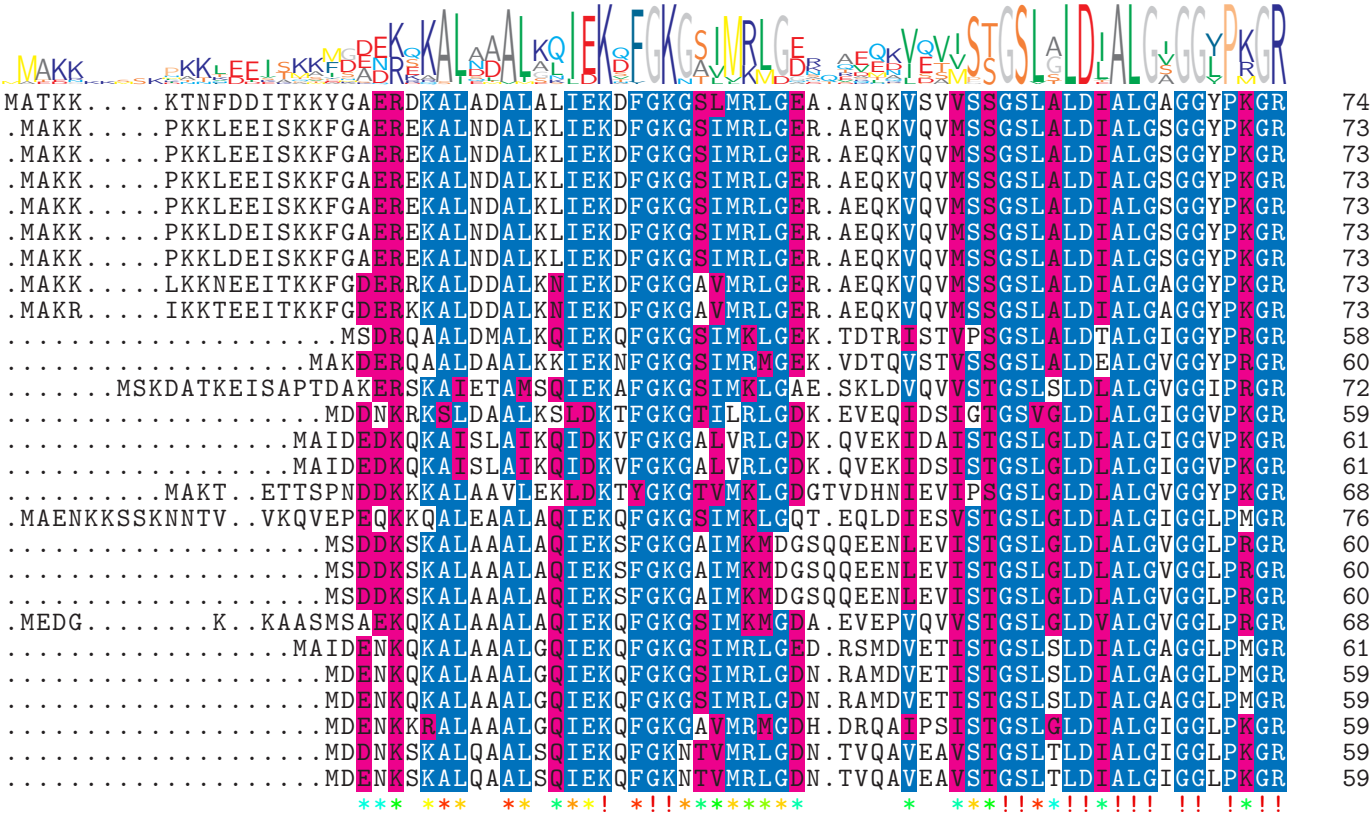


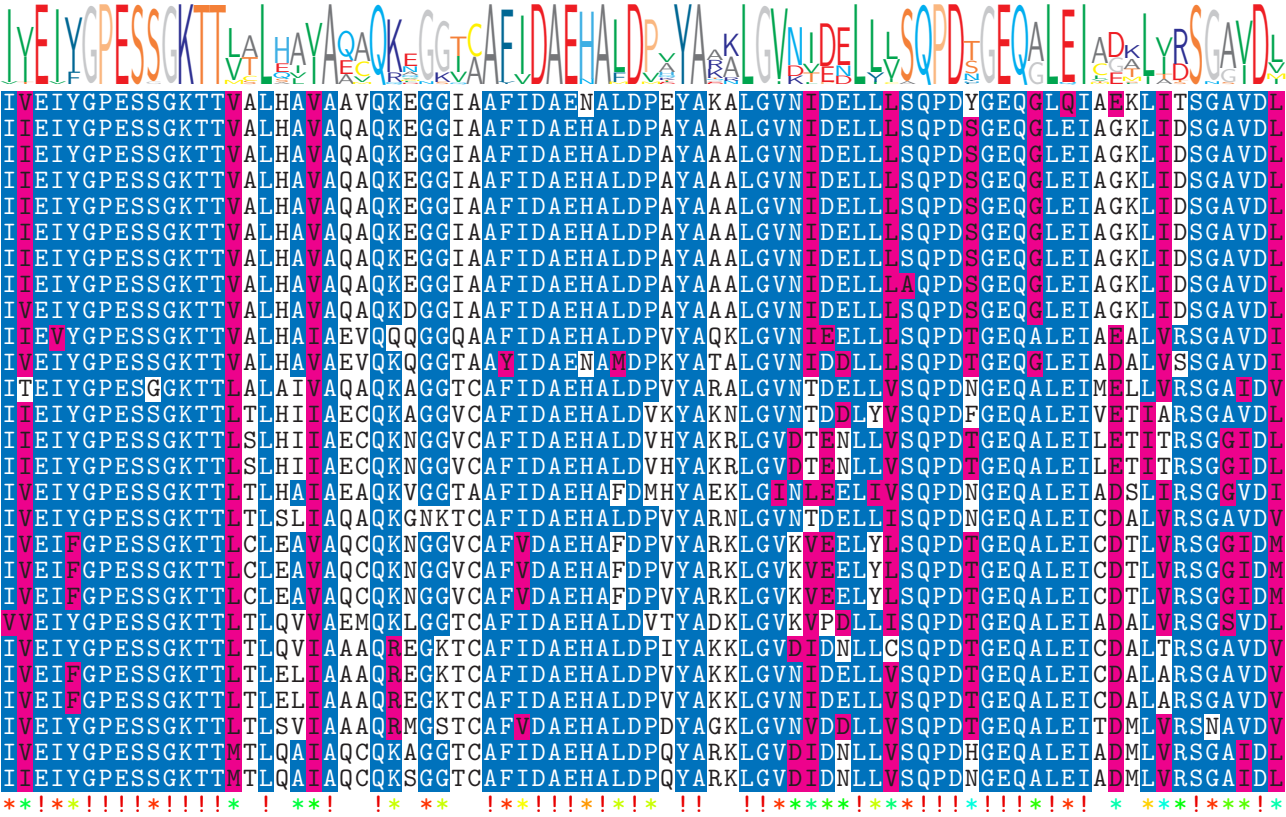
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NTDB id 1022 ACIAD RS06390 WP 004925639.1  
NTDB id 1074 ABD1 RS10195 WP 000344167.1  
consensus



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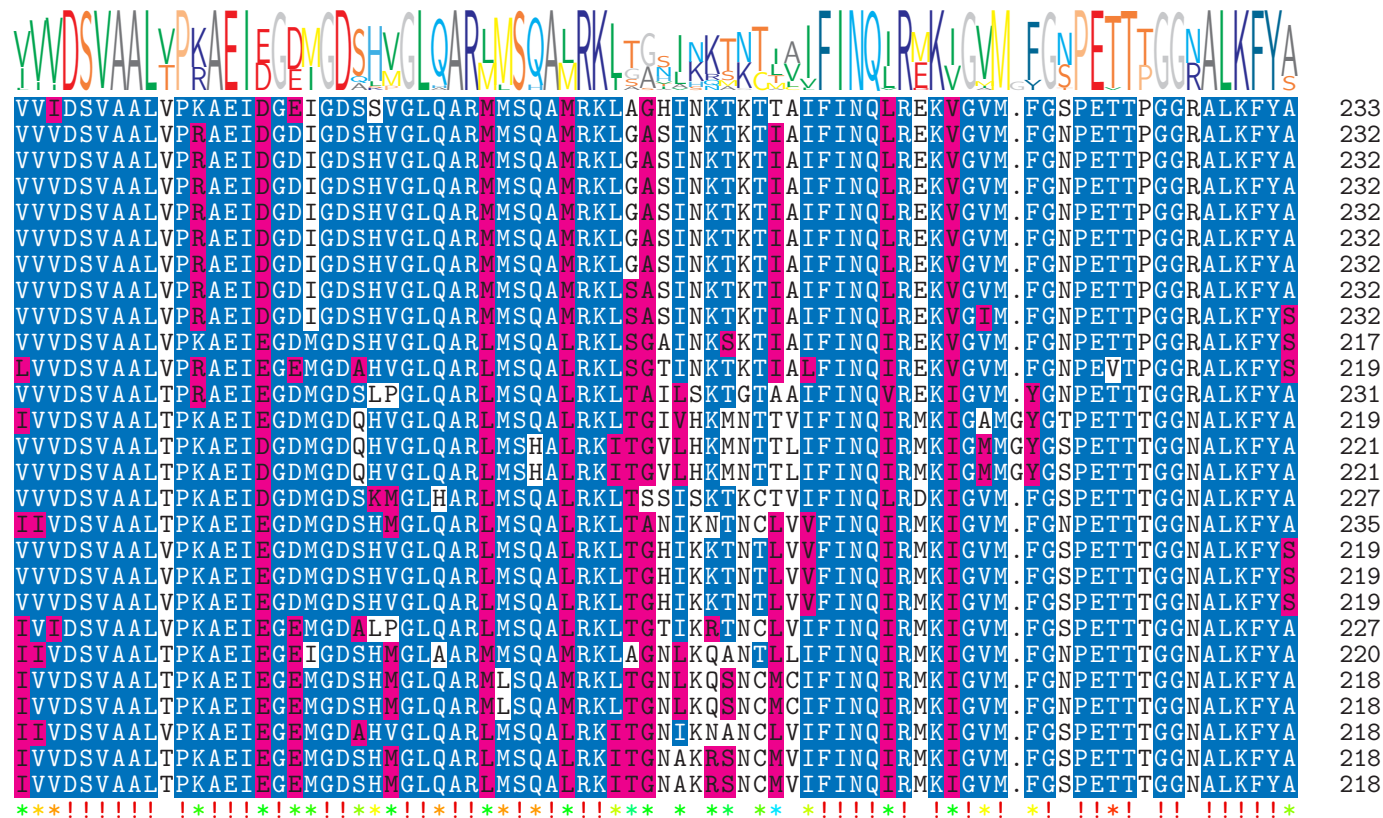


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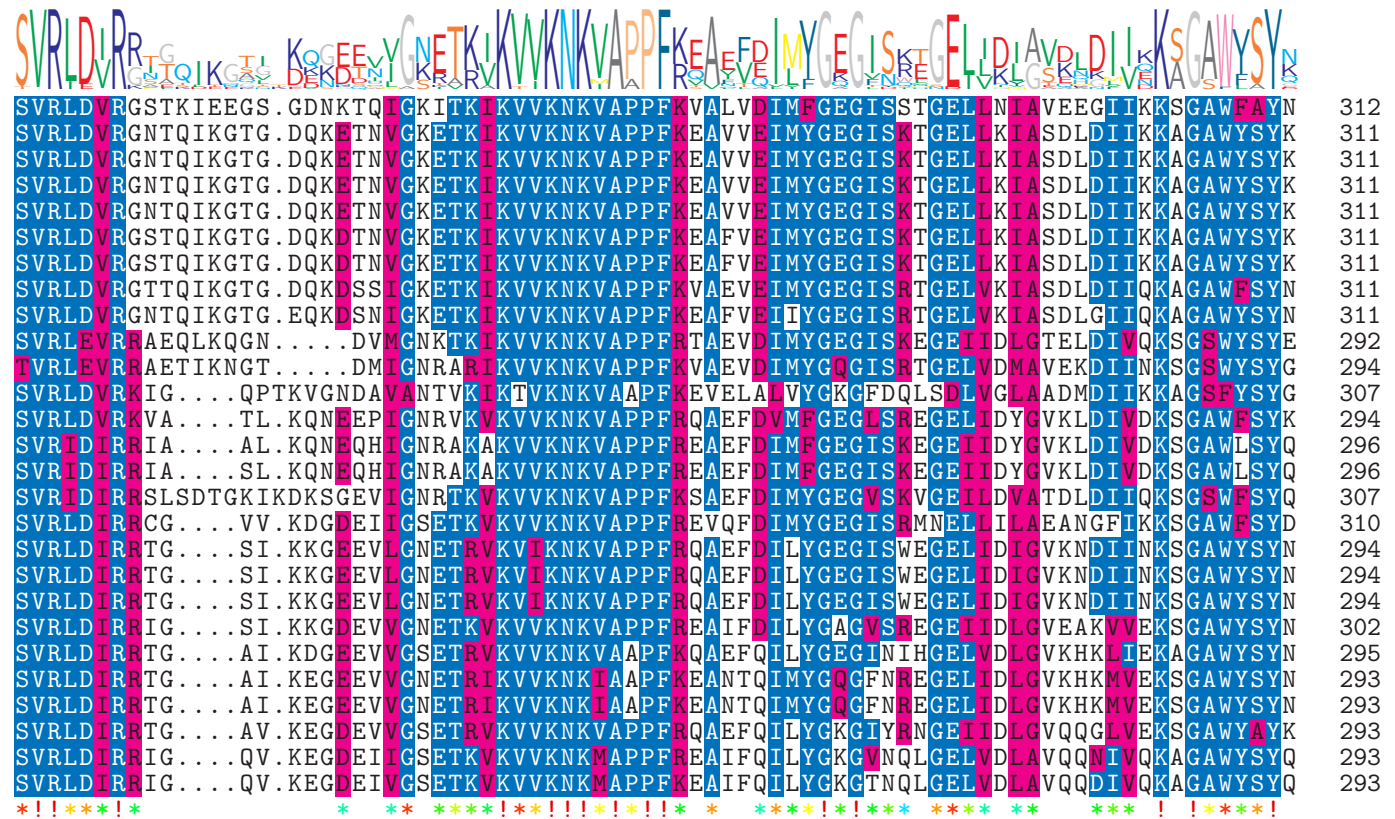
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consensus

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|---------------------------------------------|----------|------------------|-----------------|----------------|--------|-----------------------------|---------------------------|-----|
| NTDB id 600 KW2 RS01765 WP 011675413.1      | DEKIGQGA | EKAKNYLKEHQDV    | DEIDHKVRAAHG    | LDDSEVAETEEET  | ...    | TASKTKAKAKKEEKAVETEEIELELED | ..                        | 387 |
| NTDB id 269 KZH43 RS08665 WP 001085462.1    | DEKIGQGS | ENAKKYLAEHPEIF   | DEIDKQVRSKFGL   | LIDGEEVSEQDTEN | ...    | KKDE                        | ....PKKEEA..VNEEVPLDLGDEL | 382 |
| NTDB id 228 SPD RS09265 WP 001085462.1      | DEKIGQGS | ENAKKYLAEHPEIF   | DEIDKQVRSKFGL   | LIDGEEVSEQDTEN | ...    | KKDE                        | ....PKKEEA..VNEEVPLDLGDEL | 382 |
| NTDB id 194 SPR RS08825 WP 001085462.1      | DEKIGQGS | ENAKKYLAEHPEIF   | DEIDKQVRSKFGL   | LIDGEEVSEQDTEN | ...    | KKDE                        | ....PKKEEA..VNEEVPLDLGDEL | 382 |
| NTDB id 159 SP RS09750 WP 001085462.1       | DEKIGQGS | ENAKKYLAEHPEIF   | DEIDKQVRSKFGL   | LIDGEEVSEQDTEN | ...    | KKDE                        | ....PKKEEA..VNEEVPLDLGDEL | 382 |
| NTDB id 527 SMSK321 RS11065 WP 001085454.1  | DEKIGQGS | ENAKKYLADNPEVFAE | IDHQVRVQFGL     | LIDGEEAAE      | ...    | S...KKDE                    | ....VAQVDS..VNEEVTLDLGDEL | 378 |
| NTDB id 499 SM12261 RS08315 WP 078228268.1  | DEKIGQGS | ENAKKYLADNPEIF   | DEIDHQVRVQFGL   | LIDGEEIAE      | ...    | S...KKDE                    | ....AAQVDS..VNEEVTLDLGDEL | 378 |
| NTDB id 453 Spy49 1753c ACI62003.1          | GEKIGQGS | ENAKRYLADHPQLF   | DEIDRKVRVKFGL   | LEESEEEESAMAVA | ...    | SE.....E.....               | TDDLALDLNGI               | 374 |
| NTDB id 408 SMU RS09530 WP 002262392.1      | GEKIGQGS | ENAKKFLADNPEIF   | DDIDHKVRVQYGL   | IEEDNTEEKQSSK  | ...    | EK.....ETDEK..              | ADKNLVLELDDTI             | 379 |
| NTDB id 115 BSU 16940 NP 389576.2           | EERLGGG  | RENAKQFLKENKDIM  | LMIQEQIREHYGL   | DNNGVVQQAEET   | ...    | QEEL.EFE.E.....             | .....                     | 348 |
| NTDB id 625 LCA RS02525 WP 011374196.1      | SERIGQG  | RENAKNYLADHEDVE  | DEVRLKVRAAYG    | ISDVPEEDLPTTED | ...    | E.QI.NILPDDST               | ....EE.....               | 355 |
| NTDB id 1313 DR RS12030 WP 010888966.1      | DERIGQG  | KEKTIAYIAERPEME  | QEIRDRVMAAIRAG  | NAGEAPALAPAPAA | PEAAEA | .....                       | .....                     | 363 |
| NTDB id 1245 Cj1673c YP 002345041.1         | DKKLGGG  | RENSKAFLENPEIA   | DEITKAIQNSMG    | IEGMISGS       | ...    | EDD..EGEE                   | .....                     | 343 |
| NTDB id 1214 NCTC11637 00359 SQJ03206.1     | DKKLGGG  | RENAKALLKEDKAL   | ADEITLKI        | KESIGSNEEIMPL  | ...    | PDE..PLEEME                 | .....                     | 347 |
| NTDB id 1211 C694 RS00795 WP 000963128.1    | DKKLGGG  | RENAKALLKEDKAL   | ADEITLKI        | KESIGSNEEIMPL  | ...    | PDE..PLEEME                 | .....                     | 347 |
| NTDB id 1334 RAOC RS04870 WP 004918236.1    | DTKLGGG  | RDTVKELIKDNPEL   | AEELEAKIREKLQAK | .....          | .....  | .....                       | .....                     | 343 |
| NTDB id 1389 A4U84 RS07560 WP 021112712.1   | GTKIGQG  | KNNAVKWLKENPEI   | ADKLEQEIRNTL    | ASNPNSVLK      | ...    | ATASDSNDESDV                | EEF.....SEEEL             | 372 |
| NTDB id 1130 NGFG RS03960 WP 003688695.1    | GAKIGQG  | KDNVRVWLKENPEI   | SDEIDAKIRALNG   | VEMHITEG       | .....  | TQDET                       | DGE.....RPEE              | 348 |
| NTDB id 1124 NGFG RS03960 WP 003688695.1    | GAKIGQG  | KDNVRVWLKENPEI   | SDEIDAKIRALNG   | VEMHITEG       | .....  | TQDET                       | DGE.....RPEE              | 348 |
| NTDB id 1123 OK783 RS03845 WP 003688695.1   | GAKIGQG  | KDNVRVWLKENPEI   | SDEIDAKIRALNG   | VEMHITEG       | .....  | TQDET                       | DGE.....RPEE              | 348 |
| NTDB id 1427 RS RS02760 WP 011000510.1      | GERIGQG  | RDNCREFLRENAEL   | AREIENKVVREHL   | GVTMPGAVT      | ...    | L..AEEVEED                  | .....                     | 352 |
| NTDB id 274185 C5E21 RS05430 WP 012822822.1 | GDKIGQG  | KANACNFLKENSAT   | AAELDKKLREMLL   | HKGNELTP       | ...    | AAVGNSHDEDEF                | AGE.....GNEEF             | 357 |
| NTDB id 1165 A1552VC RS01565 WP 000344154.1 | GDKIGQG  | KANACKYLVKENPEI  | AKTLDKKLREMLL   | NPENMQLI       | ...    | AETSSAAD                    | VEFGA.....VPEEF           | 354 |
| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | GDKIGQG  | KANACKYLVKENPEI  | AKTLDKKLREMLL   | NPENMQLI       | ...    | AETSSAAD                    | VEFGA.....VPEEF           | 354 |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | GSKIGQG  | KANAAYLEENPEIG   | QIEQQIRAKLL     | VSANTKA        | ...    | TPVAEDLADADI                | .....                     | 347 |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | GNKIGQG  | KNNVIRYLEENPQ    | ISTEIEAVIREQLL  | TKASDQTA       | ...    | A.HDETEEPDL                 | LLES.....                 | 349 |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | GNKIGQG  | KNNVIRYFEENNQ    | IAEEIERNIREQLL  | TGTNGAV        | ...    | Q.I.EDEEPDL                 | LLE.....S.....            | 349 |
| consensus                                   | ***!!!   | *****            | **              | *****          | *****  | **                          | **                        |     |

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|---------------------------------------------|--------|---|---|---|---|---|-----|
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| NTDB id 600 KW2 RS01765 WP 011675413.1      | .....  |   |   |   |   |   | 387 |
| NTDB id 269 KZH43 RS08665 WP 001085462.1    | EIEIEE |   |   |   |   |   | 388 |
| NTDB id 228 SPD RS09265 WP 001085462.1      | EIEIEE |   |   |   |   |   | 388 |
| NTDB id 194 SPR RS08825 WP 001085462.1      | EIEIEE |   |   |   |   |   | 388 |
| NTDB id 159 SP RS09750 WP 001085462.1       | EIEIEE |   |   |   |   |   | 388 |
| NTDB id 527 SMSK321 RS11065 WP 001085454.1  | EIEIEE |   |   |   |   |   | 384 |
| NTDB id 499 SM12261 RS08315 WP 078228268.1  | EIEIEE |   |   |   |   |   | 384 |
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| NTDB id 408 SMU RS09530 WP 002262392.1      | ELED.. |   |   |   |   |   | 383 |
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| 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 |
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| NTDB id 1334 RAOC RS04870 WP 004918236.1    | .....  |   |   |   |   |   | 343 |
| NTDB id 1389 A4U84 RS07560 WP 021112712.1   | .....  |   |   |   |   |   | 372 |
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| NTDB id 1427 RS RS02760 WP 011000510.1      | .....  |   |   |   |   |   | 352 |
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| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | .....  |   |   |   |   |   | 354 |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | .....  |   |   |   |   |   | 347 |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | .....  |   |   |   |   |   | 349 |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | .....  |   |   |   |   |   | 349 |
| consensus                                   |        |   |   |   |   |   |     |

-  non conserved
-  similar
-  ≥ 50% conserved