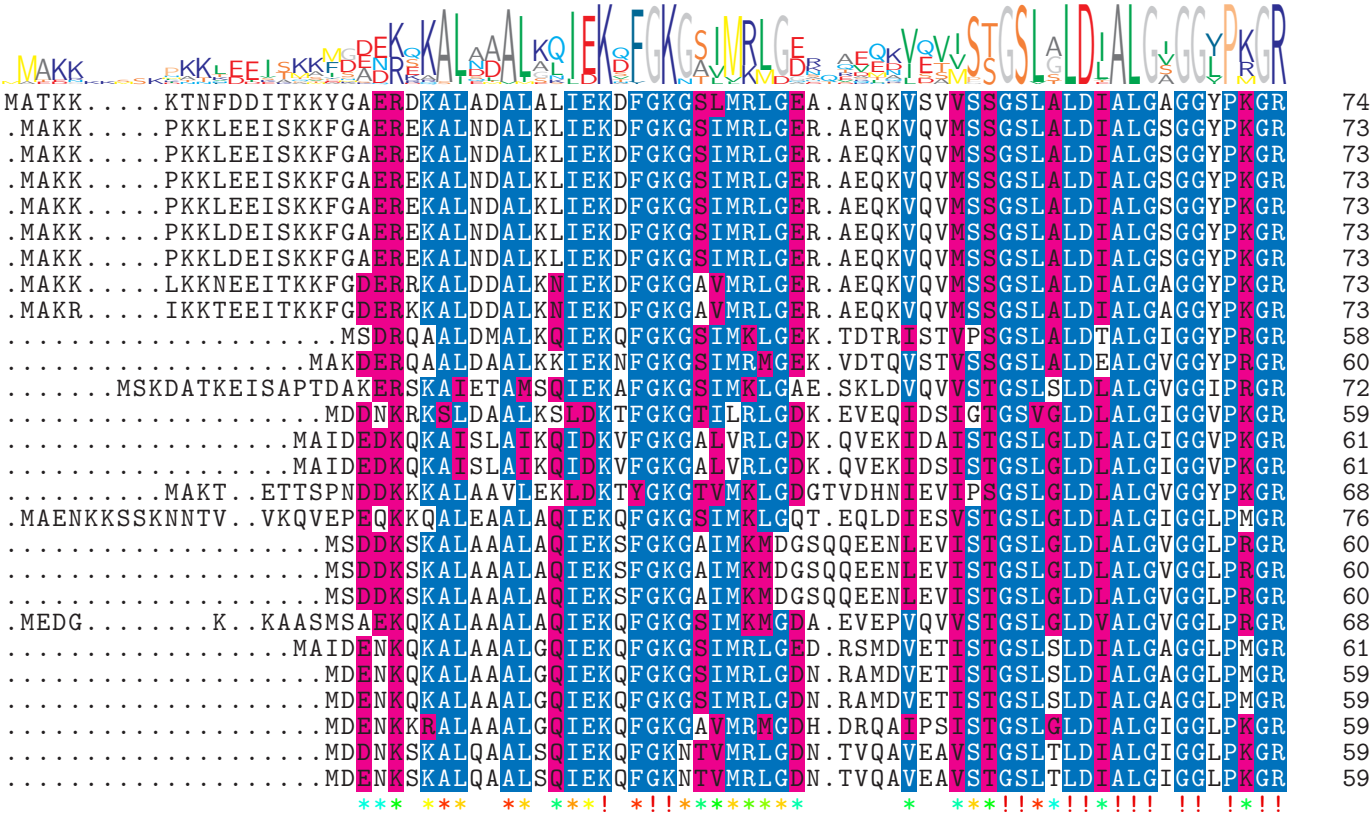


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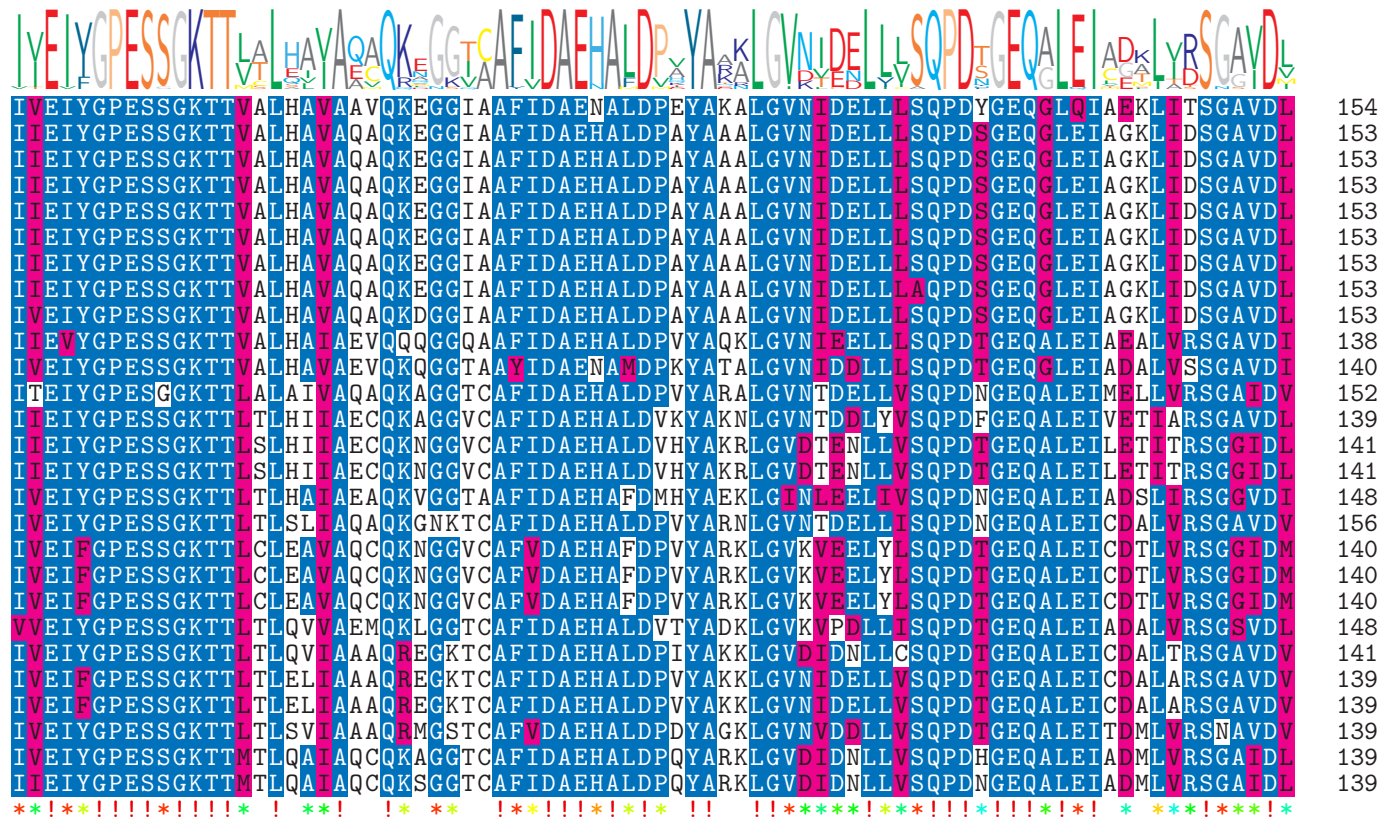
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consensus



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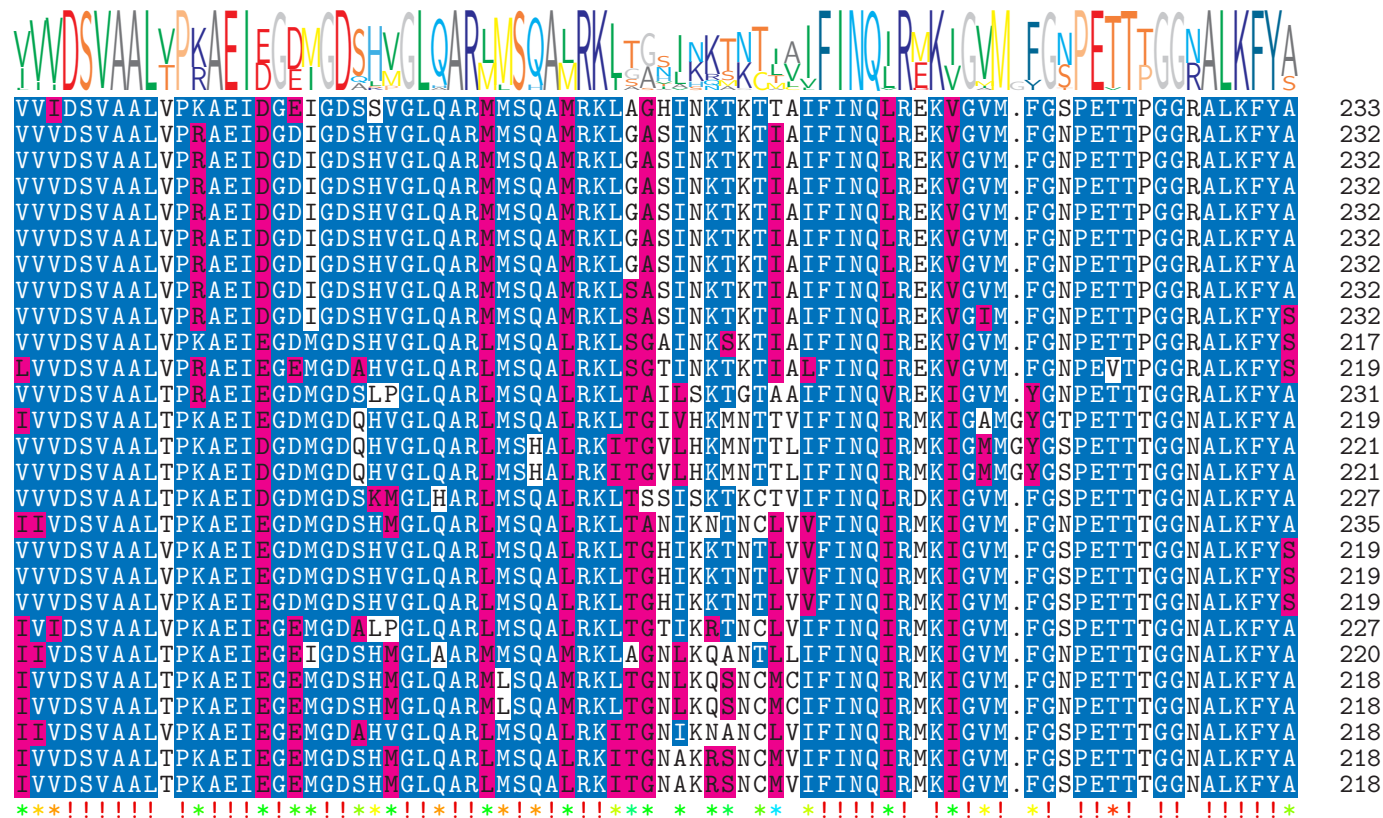
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consensus

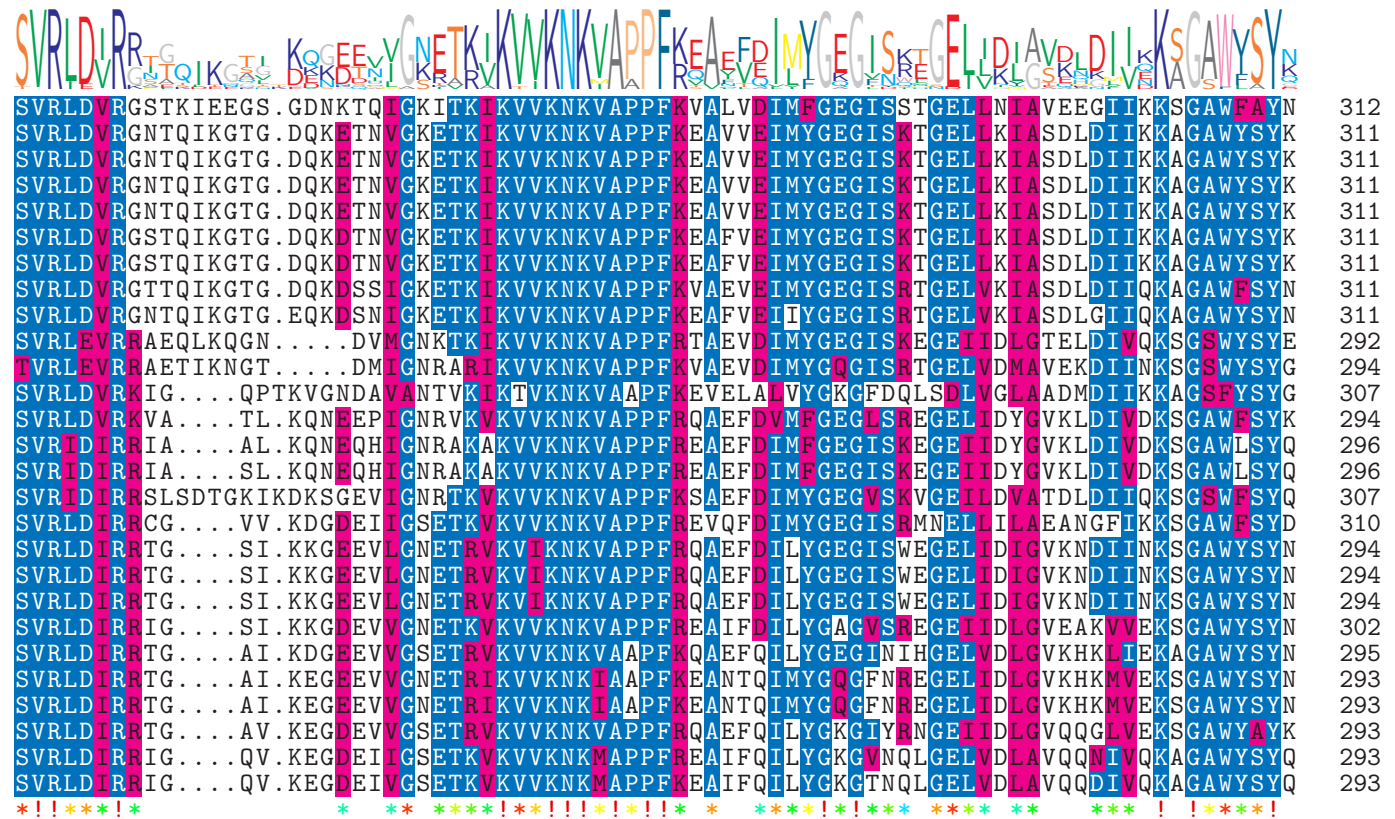
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consensus

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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                      | IEEDNTEEEKQSSK...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        | QEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAEA | .....                                          | 363                           |     |
| NTDB id 1245 Cj1673c YP 002345041.1         | DKKLGGG                          | RENSKAFLENPEI          | ADEITKAIQNSMG                      | IEGMISGS...EDD..EGEE.....                      | 343                           |     |
| NTDB id 1214 NCTC11637 00359 SQJ03206.1     | DKKLGGG                          | RENAKALLKEDKAL         | ADEITLKIKESIGS                     | NEEIMPL...PDE..PLEEME.....                     | 347                           |     |
| NTDB id 1211 C694 RS00795 WP 000963128.1    | DKKLGGG                          | RENAKALLKEDKAL         | ADEITLKIKESIGS                     | NEEIMPL...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         | ADKLEQEIRNTLASNPNSVLK              | ...ATASDSNDESDVEEF.....SEEEL.....              | 372                           |     |
| NTDB id 1130 NGFG RS03960 WP 003688695.1    | GAKIGQG                          | KDNVRVWLKENPEIS        | DEIDAKIRALNGVEMHITEG               | .....TQDETGE.....RPEE.....                     | 348                           |     |
| NTDB id 1124 NGFG RS03960 WP 003688695.1    | GAKIGQG                          | KDNVRVWLKENPEIS        | DEIDAKIRALNGVEMHITEG               | .....TQDETGE.....RPEE.....                     | 348                           |     |
| NTDB id 1123 OK783 RS03845 WP 003688695.1   | GAKIGQG                          | KDNVRVWLKENPEIS        | DEIDAKIRALNGVEMHITEG               | .....TQDETGE.....RPEE.....                     | 348                           |     |
| NTDB id 1427 RS RS02760 WP 011000510.1      | GERIGQG                          | RDCREFLRENAELAREIENKVR | EHLCVTPMGAVT....L..AEEVEED.....    | 352                                            |                               |     |
| NTDB id 403595 GMW39 RS13440 WP 012822822.1 | GDKIGQG                          | KANACNFLKENSATAA       | ELDKKLREMLLHKGNELTP                | ...AAVGNSHDEDEFAGE.....GNEEF.....              | 357                           |     |
| NTDB id 1165 A1552VC RS01565 WP 000344154.1 | GDKIGQG                          | KANACKYLNKENPEI        | AKTLDKKLREMLLNPNENMQLI             | ...AETSSAADVEFGA.....VPEEF.....                | 354                           |     |
| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | GDKIGQG                          | KANACKYLNKENPEI        | AKTLDKKLREMLLNPNENMQLI             | ...AETSSAADVEFGA.....VPEEF.....                | 354                           |     |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | GSKIGQG                          | KANAAYYLEENPEI         | QIEEQIRAKLLVTSANTKA                | ...TPVAEDLADADI.....                           | 347                           |     |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | GNKIGQG                          | KNNVIRYLEENPQISTEIEAV  | IREQLLTKASDQTA...A.HDETEEPDLLES    | .....                                          | 349                           |     |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | GNKIGQG                          | KNNVIRYFEENNQIAEEIERN  | IREQLLTGTNGAV...Q.I.EDEEPDLLE      | .....S.....                                    | 349                           |     |
| consensus                                   | **!!!!***** ** ***** ***** ** ** |                        |                                    |                                                |                               | **  |

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|                                             |        |   |   |   |   |   |     |
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| 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 |
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| 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 1123 OK783 RS03845 WP 003688695.1   | .....  |   |   |   |   |   | 348 |
| NTDB id 1427 RS RS02760 WP 011000510.1      | .....  |   |   |   |   |   | 352 |
| NTDB id 403595 GMW39 RS13440 WP 012822822.1 | .....  |   |   |   |   |   | 357 |
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| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | .....  |   |   |   |   |   | 354 |
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| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | .....  |   |   |   |   |   | 349 |
| consensus                                   |        |   |   |   |   |   |     |

-  non conserved
-  similar
-  ≥ 50% conserved