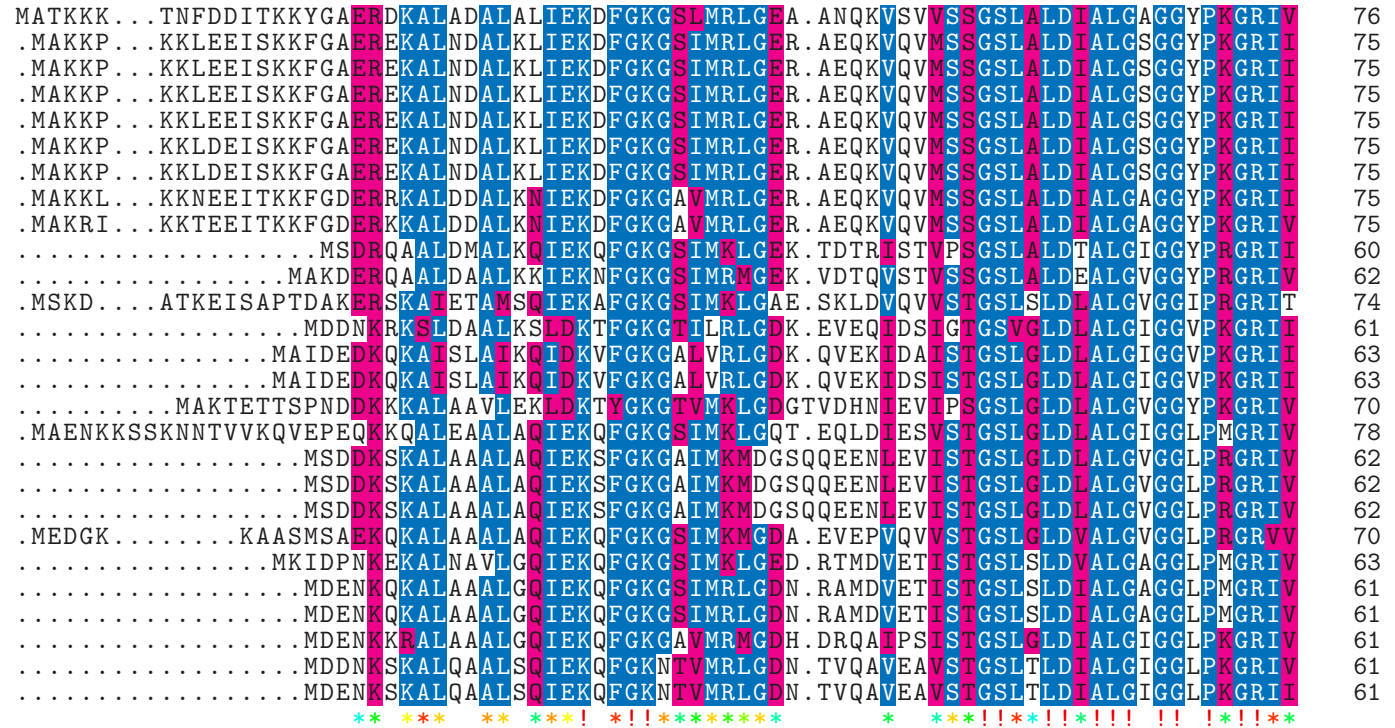


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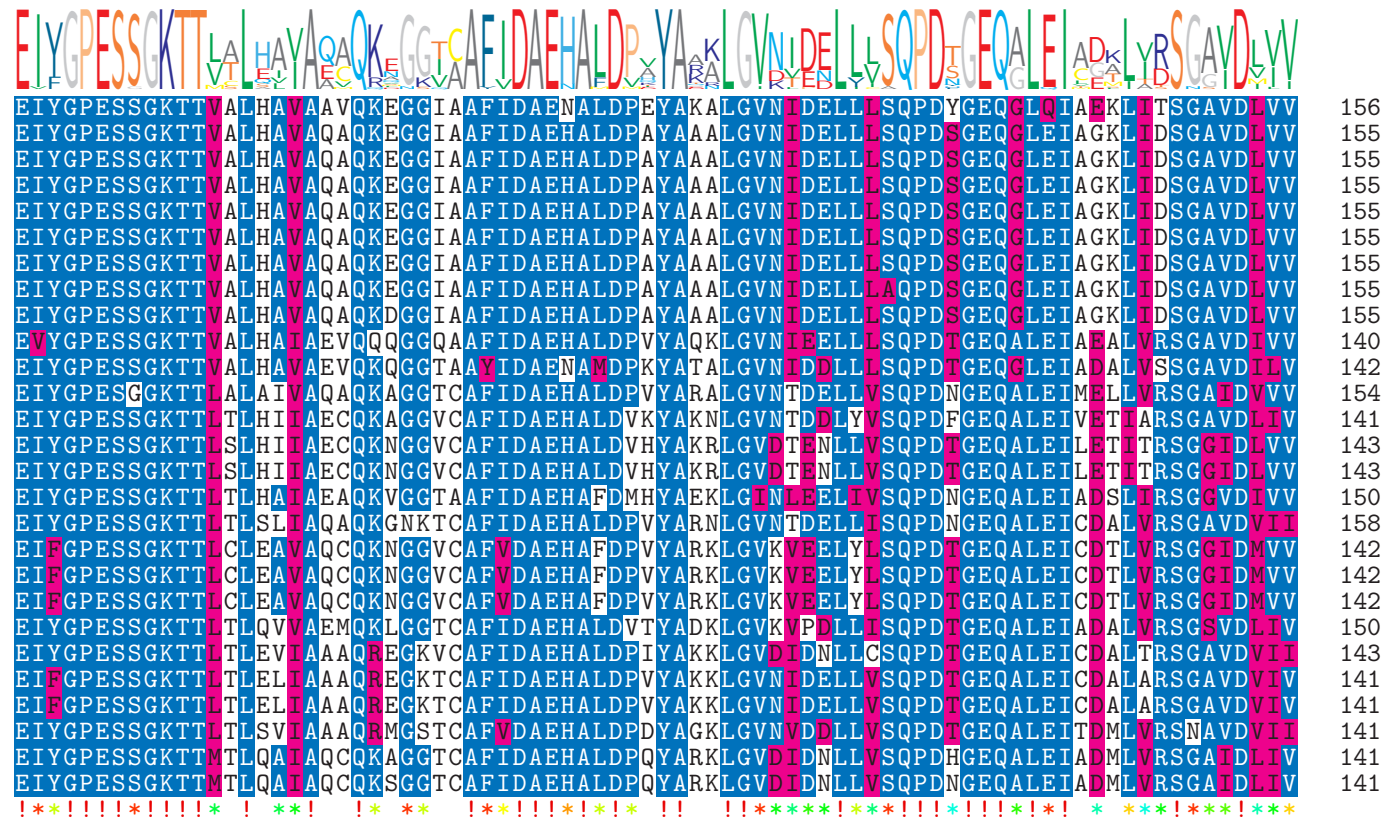
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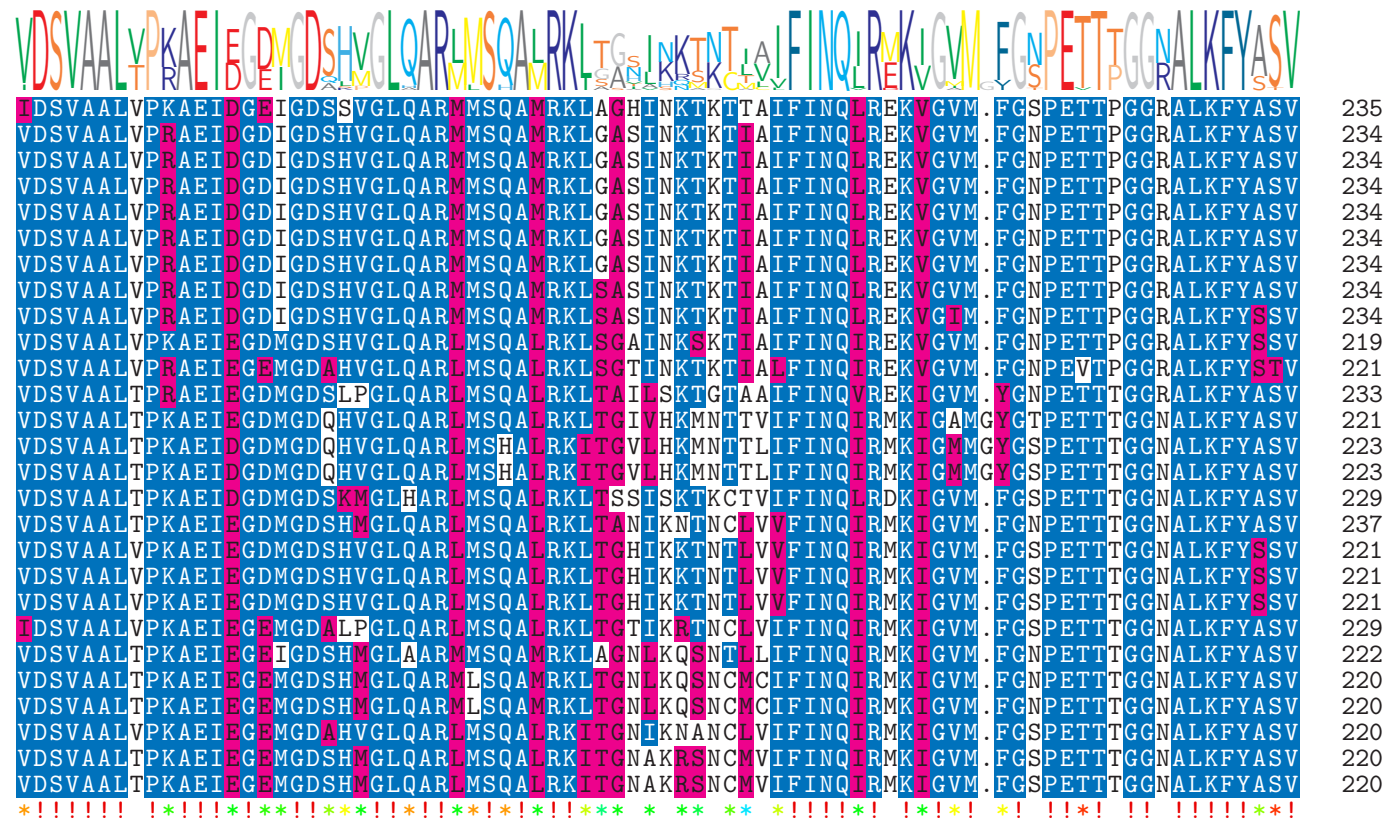
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consensus

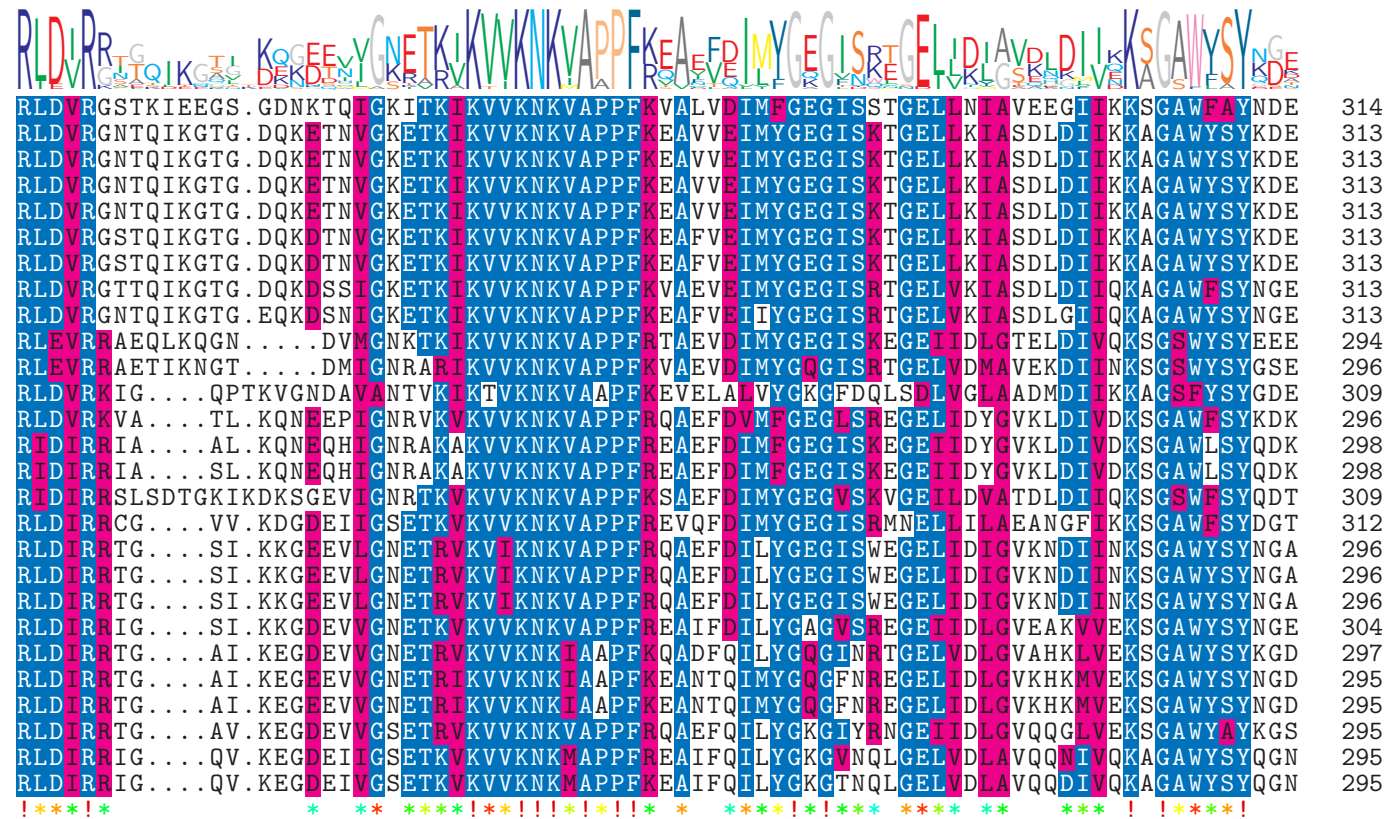
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consensus

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|                                             |        |                |                |                |               |               |                    |     |
|---------------------------------------------|--------|----------------|----------------|----------------|---------------|---------------|--------------------|-----|
| NTDB id 600 KW2 RS01765 WP 011675413.1      | KIGQGA | EKAKNYLKEHQDV  | DEIDHKVRAAHG   | LDDSEVAETEEETT | ASKTKAKAKKEEK | AVETEEIELELED | .....              | 387 |
| NTDB id 269 KZH43 RS08665 WP 001085462.1    | KIGQGS | ENAKKYLAEHPEIF | DEIDKQVRSKFGL  | IDGEEVSEQDTEN  | KKDE          | ....PKKEEA..  | VNEEVPLDLGDELEIEIE | 387 |
| NTDB id 228 SPD RS09265 WP 001085462.1      | KIGQGS | ENAKKYLAEHPEIF | DEIDKQVRSKFGL  | IDGEEVSEQDTEN  | KKDE          | ....PKKEEA..  | VNEEVPLDLGDELEIEIE | 387 |
| NTDB id 194 SPR RS08825 WP 001085462.1      | KIGQGS | ENAKKYLAEHPEIF | DEIDKQVRSKFGL  | IDGEEVSEQDTEN  | KKDE          | ....PKKEEA..  | VNEEVPLDLGDELEIEIE | 387 |
| NTDB id 159 SP RS09750 WP 001085462.1       | KIGQGS | ENAKKYLAEHPEIF | DEIDKQVRSKFGL  | IDGEEVSEQDTEN  | KKDE          | ....PKKEEA..  | VNEEVPLDLGDELEIEIE | 387 |
| NTDB id 527 SMSK321 RS11065 WP 001085454.1  | KIGQGS | ENAKKYLADNPEV  | FAEIDHQVRVQFGL | IDGEEAAE....   | SKKDE         | ....VAQVDS..  | VNEEVTLDLGDELEIEIE | 383 |
| NTDB id 499 SM12261 RS08315 WP 078228268.1  | KIGQGS | ENAKKYLADNPEIF | DEIDHQVRVQFGL  | IDGEEIAE....   | SKKDE         | ....AAQVDS..  | VNEEVTLDLGDELEIEIE | 383 |
| NTDB id 453 Spy49 1753c ACI62003.1          | KIGQGS | ENAKRYLADHPQLF | DEIDRKVRVKFGL  | LEESEEEESAMAV  | ASE           | .....E.....   | TDDLALDLNGIEIED    | 378 |
| NTDB id 408 SMU RS09530 WP 002262392.1      | KIGQGS | ENAKKFLADNPEIF | DDIDHKVRVQYGL  | IEEDNTEEEKQSS  | KEK           | .....ETDEK..  | ADKNLVLELDDTIELED  | 383 |
| NTDB id 115 BSU 16940 NP 389576.2           | RLGQGR | ENAKQFLKENKDI  | MLMIQEQIREHYG  | LNNGVVQQQAEET  | QEEL          | EFEE.....     | .....              | 348 |
| NTDB id 625 LCA RS02525 WP 011374196.1      | RIGQGR | ENAKNYLADHEDV  | EVRLKVRAAYG    | ISDVPEEDLPTTE  | DE            | QI.NILPDDST   | ....EE.....        | 355 |
| NTDB id 1313 DR RS12030 WP 010888966.1      | RIGQGK | EKTIAIYTAERP   | EMEQEIRDRVMA   | AIRAGNAGEAPAL  | A             | PAPAAPE       | .....              | 363 |
| NTDB id 1245 Cj1673c YP 002345041.1         | KLGGGR | ENSKAFLKENPEI  | ADEITKAIQNSMG  | TEGM....ISG    | SED           | DEGEE         | .....              | 343 |
| NTDB id 1214 NCTC11637 00359 SQJ03206.1     | KLGGGR | ENAKALLKEDKA   | LADAITLKIKES   | IGSNEE....     | IMPLPD        | EPLEEME       | .....              | 347 |
| NTDB id 1211 C694 RS00795 WP 000963128.1    | KLGGGR | ENAKALLKEDKA   | LADAITLKIKES   | IGSNEE....     | IMPLPD        | EPLEEME       | .....              | 347 |
| NTDB id 1334 RAOC RS04870 WP 004918236.1    | KLGGGR | DTVKELIKDNPE   | LAELEAKIREKL   | QAK            | .....         | .....         | .....              | 343 |
| NTDB id 1389 A4U84 RS07560 WP 021112712.1   | KIGQGG | KNNAVKWLKENPE  | IADKLEQIRNTL   | ASNPN....      | SVLKATAS      | DSNDES        | DVEEF...SEE..EL    | 372 |
| NTDB id 1130 NGFG RS03960 WP 003688695.1    | KIGQGG | KDNVRVWLKENPE  | ISDEIDAKIRALN  | GVEMH....      | ITEGT         | .....QDET     | D...GERPEE         | 348 |
| NTDB id 1124 NGFG RS03960 WP 003688695.1    | KIGQGG | KDNVRVWLKENPE  | ISDEIDAKIRALN  | GVEMH....      | ITEGT         | .....QDET     | D...GERPEE         | 348 |
| NTDB id 1123 OK783 RS03845 WP 003688695.1   | KIGQGG | KDNVRVWLKENPE  | ISDEIDAKIRALN  | GVEMH....      | ITEGT         | .....QDET     | D...GERPEE         | 348 |
| NTDB id 1427 RS RS02760 WP 011000510.1      | RIGQGR | DNCREFLRENAEL  | AREIENKVREHL   | GVTPM....      | GAVTL         | AEVEEED       | .....              | 352 |
| NTDB id 317714 D7032 RS14925 WP 025011663.1 | KIGQGR | ANAGKFLKENPEV  | AAEIEAALRAKLL  | SKAE....       | AAPASA        | ETGEGNV       | DLET...GEVF        | 354 |
| NTDB id 1165 A1552VC RS01565 WP 000344154.1 | KIGQGG | KANACKYLLKENPE | IAKTLDKKLREML  | LNPN....       | MQ.LIA        | ETSSAADD      | VEF...GAVPEEF      | 354 |
| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | KIGQGG | KANACKYLLKENPE | IAKTLDKKLREML  | LNPN....       | MQ.LIA        | ETSSAADD      | VEF...GAVPEEF      | 354 |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | KIGQGG | KANAACKYLEENPE | IGQIEEQIRAKLL  | VTSA....       | NTKATPVA      | EDLADADI      | .....              | 347 |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | KIGQGG | KNNVIRYLEENPQ  | ISTEIEAVIREQL  | LT             | T             | KAS....DQTAA  | HDTEEEEDLLES       | 349 |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | KIGQGG | KNNVIRYFEENNQ  | IAEEIERNIREQL  | LT             | T             | GT....NGAVQ   | I.EDEEEDLLE        | 349 |
| consensus                                   | **!!!  | *****          | **             | *****          | *****         | **            | *                  |     |

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| NTDB id 194 SPR RS08825 WP 001085462.1      | E | 388 |
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consensus

 non conserved  
 similar  
 ≥ 50% conserved