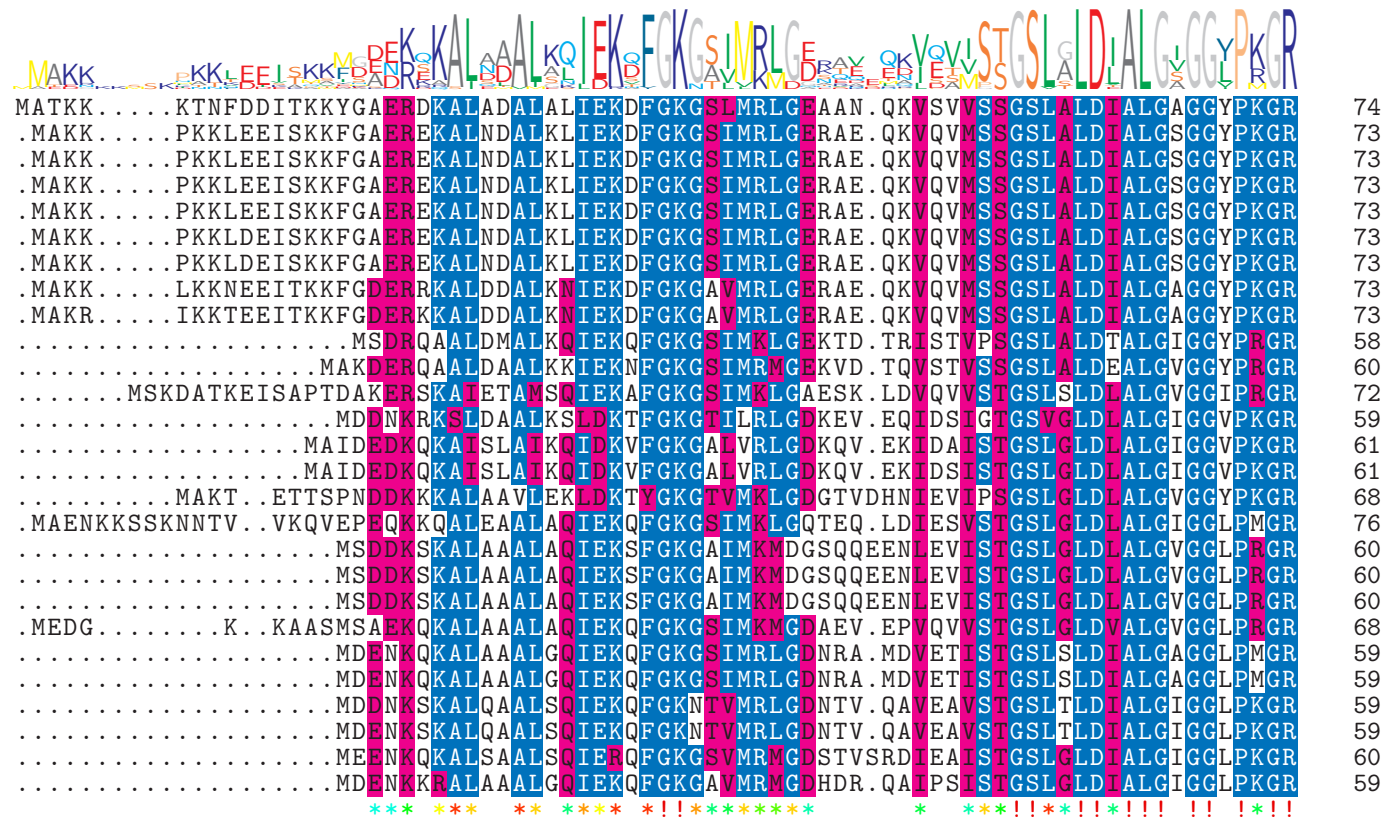


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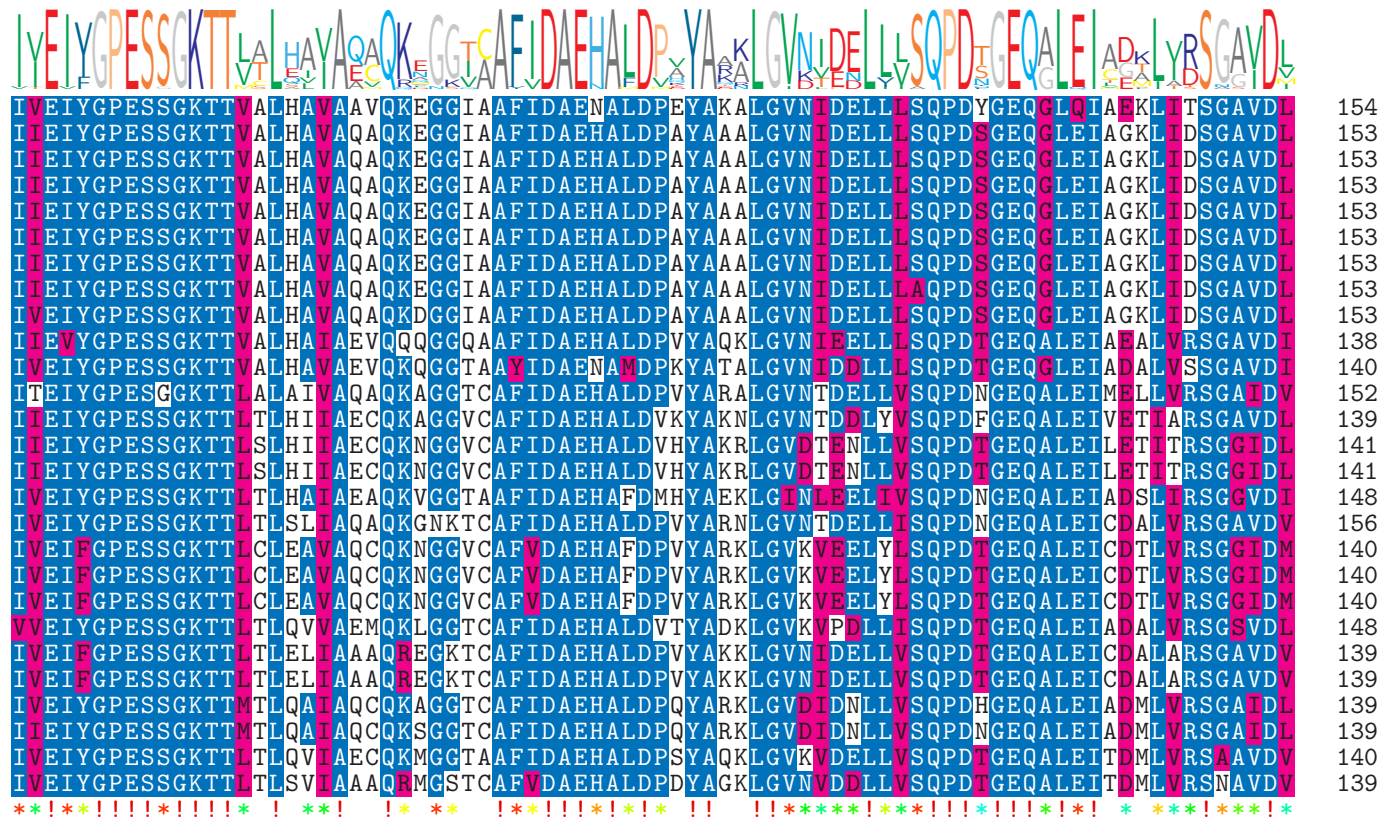
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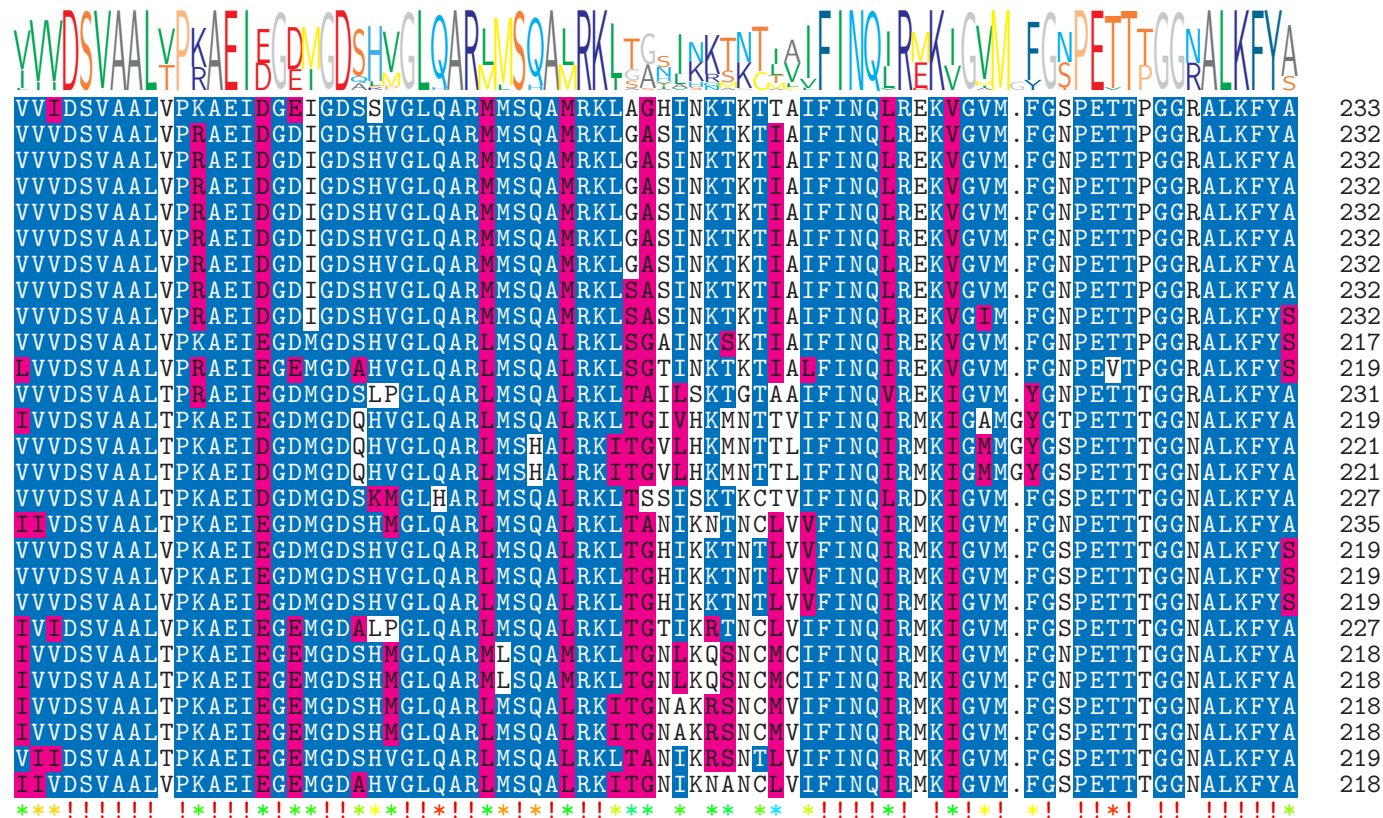
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consensus

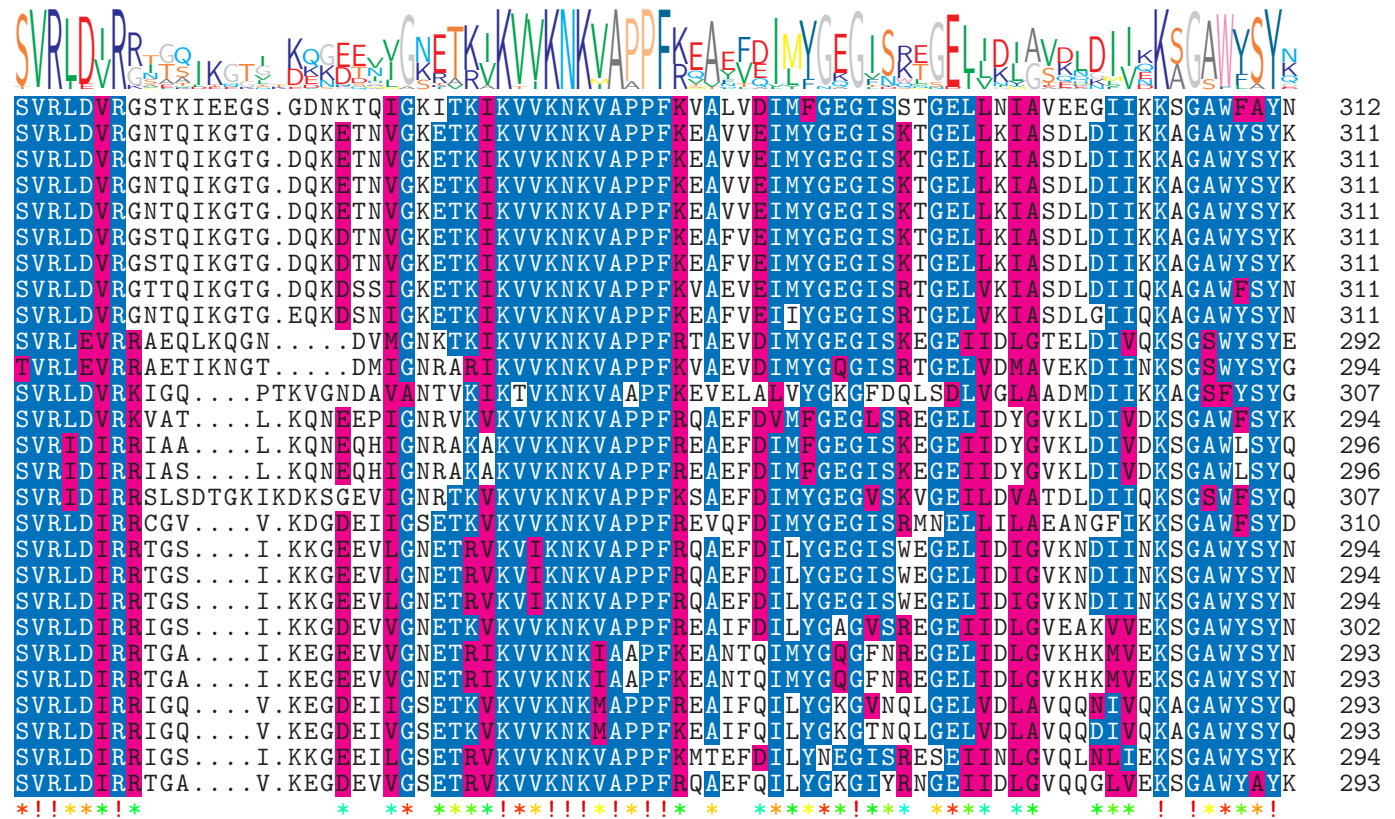
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consensus

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|                                             |          |                  |                 |                   |                |                   |                   |     |
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| NTDB id 600 KW2 RS01765 WP 011675413.1      | DEKIGQGA | EKAKNYLKEHQDV    | DEIDHKVRAAHG    | LDDSEVAETEEETT    | ASKTKAKAKKE    | EKAVETEEIELELED   | ....              | 387 |
| NTDB id 269 KZH43 RS08665 WP 001085462.1    | DEKIGQGS | ENAKKYLAEHPEIF   | DEIDKQVRSKFGL   | IDGEEVSEQDTENKKDE | ....PKKEEA     | .VNEEVPLDLGDELEIE |                   | 385 |
| NTDB id 228 SPD RS09265 WP 001085462.1      | DEKIGQGS | ENAKKYLAEHPEIF   | DEIDKQVRSKFGL   | IDGEEVSEQDTENKKDE | ....PKKEEA     | .VNEEVPLDLGDELEIE |                   | 385 |
| NTDB id 194 SPR RS08825 WP 001085462.1      | DEKIGQGS | ENAKKYLAEHPEIF   | DEIDKQVRSKFGL   | IDGEEVSEQDTENKKDE | ....PKKEEA     | .VNEEVPLDLGDELEIE |                   | 385 |
| NTDB id 159 SP RS09750 WP 001085462.1       | DEKIGQGS | ENAKKYLAEHPEIF   | DEIDKQVRSKFGL   | IDGEEVSEQDTENKKDE | ....PKKEEA     | .VNEEVPLDLGDELEIE |                   | 385 |
| NTDB id 527 SMSK321 RS11065 WP 001085454.1  | DEKIGQGS | ENAKKYLADNPEVFAE | IDHQVRVQFGL     | IDGEEAAE          | ....SKKDE      | ....VAQVDS        | .VNEEVTLDLGDELEIE | 381 |
| NTDB id 499 SM12261 RS08315 WP 078228268.1  | DEKIGQGS | ENAKKYLADNPEIF   | DEIDHQVRVQFGL   | IDGEEIAE          | ....SKKDE      | ....AAQVDS        | .VNEEVTLDLGDELEIE | 381 |
| NTDB id 453 Spy49 1753c ACI62003.1          | GEKIGQGS | ENAKRYLADHPQLF   | DEIDRKVRVKFGL   | LEESEEEESAMAVASE  | .....E         | .....TDDLALDLN    | GIEIE             | 377 |
| NTDB id 408 SMU RS09530 WP 002262392.1      | GEKIGQGS | ENAKKFLADNPEIF   | DDIDHKVRVQYGL   | IEEDNTEEKQSSKEK   | .....ETDEK     | ..ADKNLVLELDDT    | IELE              | 382 |
| NTDB id 115 BSU 16940 NP 389576.2           | EEERLGGQ | RENAKQFLKENKDIM  | LMIQEQIREHYGL   | DNNGVVQQAEETQEEL  | .EFE.E         | .....             |                   | 348 |
| NTDB id 625 LCA RS02525 WP 011374196.1      | SERIGQG  | RENAKNYLADHEDVE  | DEVRLKVRAAYG    | ISDVPPEEDLPTTEDE  | .QI.NILPDDST   | .....EE           | .....             | 355 |
| NTDB id 1313 DR RS12030 WP 010888966.1      | DERIGQG  | KEKTIAYIAERP     | EMEQEIRDRVMAAIR | AGNAGEAPALAPAPAA  | PEAAE..A       | .....             |                   | 363 |
| NTDB id 1245 Cj1673c YP 002345041.1         | DKKLGGQ  | RENSKAFLENPEIA   | DEITKAIQNSMG    | IEGMIS            | ....GSED..DEGE | ..E               | .....             | 343 |
| NTDB id 1214 NCTC11637 00359 SQJ03206.1     | DKKLGGQ  | RENAKALLKEDKALA  | DEITLKI         | KESIGSNEEIM       | ....PLPD..EPLE | ..EME             | .....             | 347 |
| NTDB id 1211 C694 RS00795 WP 000963128.1    | DKKLGGQ  | RENAKALLKEDKALA  | DEITLKI         | KESIGSNEEIM       | ....PLPD..EPLE | ..EME             | .....             | 347 |
| NTDB id 1334 RAOC RS04870 WP 004918236.1    | DTKLGGQ  | RDITVKELIKDNPE   | LAELEAKIREKLQAK | .....             |                |                   |                   | 343 |
| NTDB id 1389 A4U84 RS07560 WP 021112712.1   | GTKIGQG  | KNNAVKWLKENPEIA  | DKLEQEIRNTLAS   | NPNSV             | ....LKATASDSND | ..ESDVEEF         | SEEL              | 372 |
| NTDB id 1130 NGFG RS03960 WP 003688695.1    | GAKIGQG  | KDNVRVWLKENPEIS  | DEIDAKIRALNGV   | EMHIT             | ....EGTQDET    | DGE..RPE          | .....E            | 348 |
| NTDB id 1124 NGFG RS03960 WP 003688695.1    | GAKIGQG  | KDNVRVWLKENPEIS  | DEIDAKIRALNGV   | EMHIT             | ....EGTQDET    | DGE..RPE          | .....E            | 348 |
| NTDB id 1123 OK783 RS03845 WP 003688695.1   | GAKIGQG  | KDNVRVWLKENPEIS  | DEIDAKIRALNGV   | EMHIT             | ....EGTQDET    | DGE..RPE          | .....E            | 348 |
| NTDB id 1427 RS RS02760 WP 011000510.1      | GERIGQG  | RDNCREFLRENAEL   | AREIENKVR       | REHLGVTPMGA       | ....V.TLAE     | VEE..D            | .....             | 352 |
| NTDB id 1165 A1552VC RS01565 WP 000344154.1 | GDKIGQG  | KANACKYLKENPEIA  | KTLDKKLREMLLN   | PENMQ             | ....LIAETSSAAD | ..DVEFGAV         | PEEF              | 354 |
| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | GDKIGQG  | KANACKYLKENPEIA  | KTLDKKLREMLLN   | PENMQ             | ....LIAETSSAAD | ..DVEFGAV         | PEEF              | 354 |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | GNKIGQG  | KNNVIRYLEENPQIS  | TEIEAVIREQLLT   | KASDQ             | ....TAAHDET    | .EE..EPDLL        | ..ES              | 349 |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | GNKIGQG  | KNNVIRYFEENNQIA  | EEIERNIREQLLT   | TGTNG             | ....AVQI       | .ED.EE..EPDLL     | ..LES             | 349 |
| NTDB id 184640 A9E94 RS08800 WP 010947527.1 | QEKIGQG  | KENVRLYLKENPQV   | AAELEQQIRTELLE  | KKLSV             | ....LASSSED    | LFE..TIDD         | .....             | 348 |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | GSKIGQG  | KANAACKYLEENPEI  | GQIEIEQQIRAKLL  | VTSANT            | ....KATPVAEDLA | ..DADI            | .....             | 347 |
| consensus                                   | ***!!!   | *****            | **              | *****             | *****          | **                | **                |     |

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|                                             |     |     |
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| NTDB id 269 KZH43 RS08665 WP 001085462.1    | IEE | 388 |
| NTDB id 228 SPD RS09265 WP 001085462.1      | IEE | 388 |
| NTDB id 194 SPR RS08825 WP 001085462.1      | IEE | 388 |
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consensus

 non conserved  
 similar  
 ≥ 50% conserved