

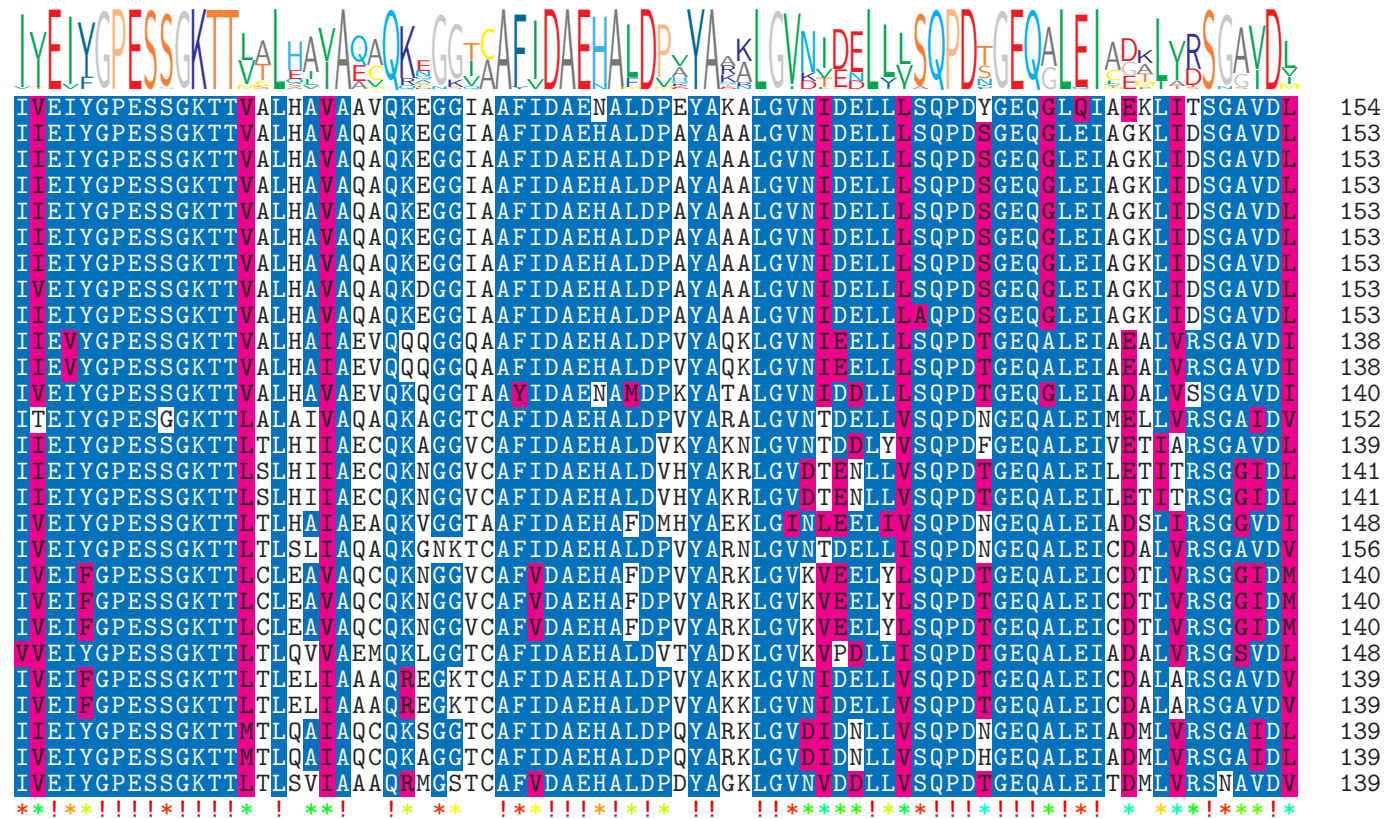
logo

|                                             |                          |                   |                |           |             |      |         |      |                            |
|---------------------------------------------|--------------------------|-------------------|----------------|-----------|-------------|------|---------|------|----------------------------|
| NTDB id 600 KW2 RS01765 WP 011675413.1      | MATKK.....KTNFDDITKKYGA  | ERDKALADALALIEKD  | FGKGSIMRLGEA   | .ANQKVS   | VSSGSLALD   | I    | ALGAGGY | PKGR | 74                         |
| NTDB id 269 KZH43 RS08665 WP 001085462.1    | .MAKK.....PKKLEEISKKFGA  | EREKALNDALKLIEKD  | FGKGSIMRLGER   | .AEQKVQVM | SSGSLALD    | I    | ALGSGGY | PKGR | 73                         |
| NTDB id 228 SPD RS09265 WP 001085462.1      | .MAKK.....PKKLEEISKKFGA  | EREKALNDALKLIEKD  | FGKGSIMRLGER   | .AEQKVQVM | SSGSLALD    | I    | ALGSGGY | PKGR | 73                         |
| NTDB id 194 SPR RS08825 WP 001085462.1      | .MAKK.....PKKLEEISKKFGA  | EREKALNDALKLIEKD  | FGKGSIMRLGER   | .AEQKVQVM | SSGSLALD    | I    | ALGSGGY | PKGR | 73                         |
| NTDB id 159 SP RS09750 WP 001085462.1       | .MAKK.....PKKLEEISKKFGA  | EREKALNDALKLIEKD  | FGKGSIMRLGER   | .AEQKVQVM | SSGSLALD    | I    | ALGSGGY | PKGR | 73                         |
| NTDB id 527 SMSK321 RS11065 WP 001085454.1  | .MAKK.....PKKLDEISKKFGA  | EREKALNDALKLIEKD  | FGKGSIMRLGER   | .AEQKVQVM | SSGSLALD    | I    | ALGSGGY | PKGR | 73                         |
| NTDB id 499 SM12261 RS08315 WP 078228268.1  | .MAKK.....PKKLDEISKKFGA  | EREKALNDALKLIEKD  | FGKGSIMRLGER   | .AEQKVQVM | SSGSLALD    | I    | ALGSGGY | PKGR | 73                         |
| NTDB id 408 SMU RS09530 WP 002262392.1      | .MAKR.....IKKTEEITKKFGD  | ERRKALDDALKNIEKD  | FGKGAVMRLGER   | .AEQKVQVM | SSGSLALD    | I    | ALGAGGY | PKGR | 73                         |
| NTDB id 453 Spy49 1753c ACI62003.1          | .MAKK.....LKKNEEITKKFGD  | ERRKALDDALKNIEKD  | FGKGAVMRLGER   | .AEQKVQVM | SSGSLALD    | I    | ALGAGGY | PKGR | 73                         |
| NTDB id 339857 ES968 RS09255 WP 003245789.1 | .....MS                  | DRQAALDMALKQIEKQ  | FGKGSIMKLGEK   | .TDTRISTV | PSGSLALD    | T    | ALGIGGY | PRGR | 58                         |
| NTDB id 115 BSU 16940 NP 389576.2           | .....MS                  | DRQAALDMALKQIEKQ  | FGKGSIMKLGEK   | .TDTRISTV | PSGSLALD    | T    | ALGIGGY | PRGR | 58                         |
| NTDB id 625 LCA RS02525 WP 011374196.1      | .....MAKD                | ERQAALDAALKKIEKN  | FGKGSIMRMGEK   | .VDTQVSTV | SSGSLALD    | E    | ALGVGGY | PRGR | 60                         |
| NTDB id 1313 DR RS12030 WP 010888966.1      | .....MSKDATKEISAPTD      | AKERSKATETAMSQIEK | AFGKGSIMKLGA   | E.SKLDVQV | VSTGSLSLD   | L    | ALGVGGI | PRGR | 72                         |
| NTDB id 1245 Cj1673c YP 002345041.1         | .....MDDN                | KRKSLDAALKSLDKT   | FGKGTILRLGDK   | .EVEQIDS  | IGTGSVGLD   | L    | ALGIGGV | PKGR | 59                         |
| NTDB id 1211 C694 RS00795 WP 000963128.1    | .....MAIDE               | DKQKATISLAIKQID   | KVFGKGALVRLGDK | .QVEKIDS  | ISTGSLGLD   | L    | ALGIGGV | PKGR | 61                         |
| NTDB id 1214 NCTC11637 00359 SQJ03206.1     | .....MAIDE               | DKQKATISLAIKQID   | KVFGKGALVRLGDK | .QVEKIDA  | ISTGSLGLD   | L    | ALGIGGV | PKGR | 61                         |
| NTDB id 1334 RAOC RS04870 WP 004918236.1    | .....MAKT..ETTSPND       | DKKKALAAVLEKLDKT  | YGKGTVMKLG     | DGTVDHNI  | EVIPSGSLGLD | L    | ALGVGGY | PKGR | 68                         |
| NTDB id 1389 A4U84 RS07560 WP 021112712.1   | .MAENKKSSKNNTV..VKQVEPEQ | KKQALEAALAQIEKQ   | FGKGSIMKLQGT   | .EQLDIES  | VSTGSLGLD   | L    | ALGIGGL | PMGR | 76                         |
| NTDB id 1130 NGFG RS03960 WP 003688695.1    | .....MSD                 | DKSKALAAALAQIEKS  | FGKGAIMKMDGSQ  | QEENLEV   | ISTGSLGLD   | L    | ALGVGGL | PRGR | 60                         |
| NTDB id 1124 NGFG RS03960 WP 003688695.1    | .....MSD                 | DKSKALAAALAQIEKS  | FGKGAIMKMDGSQ  | QEENLEV   | ISTGSLGLD   | L    | ALGVGGL | PRGR | 60                         |
| NTDB id 1123 OK783 RS03845 WP 003688695.1   | .....MSD                 | DKSKALAAALAQIEKS  | FGKGAIMKMDGSQ  | QEENLEV   | ISTGSLGLD   | L    | ALGVGGL | PRGR | 60                         |
| NTDB id 1427 RS RS02760 WP 011000510.1      | .MEDG.....K..KAASMSA     | EKKQKALAAALAQIEKQ | FGKGSIMKMGDA   | .EVEPVQV  | VSTGSLGLD   | V    | ALGVGGL | PRGR | 68                         |
| NTDB id 1165 A1552VC RS01565 WP 000344154.1 | .....MDEN                | KQKALAAALGQIEKQ   | FGKGSIMRLGDN   | .RAMDVET  | ISTGSLSLD   | I    | ALGAGGL | PMGR | 59                         |
| NTDB id 1142 GTF74 RS11550 WP 000344154.1   | .....MDEN                | KQKALAAALGQIEKQ   | FGKGSIMRLGDN   | .RAMDVET  | ISTGSLSLD   | I    | ALGAGGL | PMGR | 59                         |
| NTDB id 1074 ABD1 RS10195 WP 000344167.1    | .....MDEN                | KSKALQAALSQIEKQ   | FGKNTVMRLGDN   | .TVQAVEA  | VSTGSLTLD   | I    | ALGIGGL | PKGR | 59                         |
| NTDB id 1022 ACIAD RS06390 WP 004925639.1   | .....MDDN                | KSKALQAALSQIEKQ   | FGKNTVMRLGDN   | .TVQAVEA  | VSTGSLTLD   | I    | ALGIGGL | PKGR | 59                         |
| NTDB id 1205 PSJM300 05545 AFN77183.1       | .....MDEN                | KKRALAAALGQIEKQ   | FGKGAVMRMGDH   | .DRQAIPS  | ISTGSLGLD   | I    | ALGIGGL | PKGR | 59                         |
| consensus                                   |                          | ***               | ***            | *         | ***!        | ***! | *****   | *    | ***!!*!!*!!*!!*!!*!!*!!*!! |

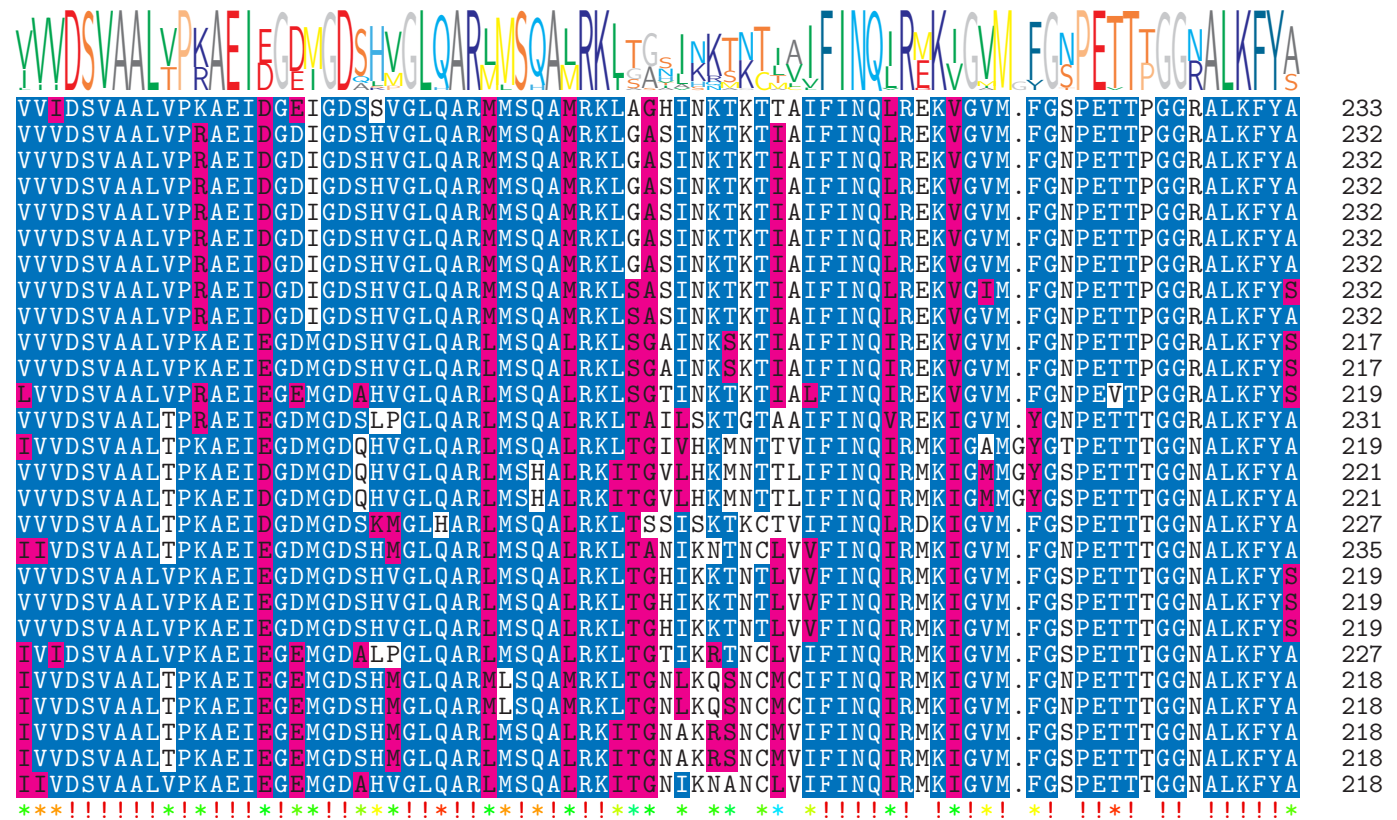
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NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
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NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 408 SMU RS09530 WP 002262392.1
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NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

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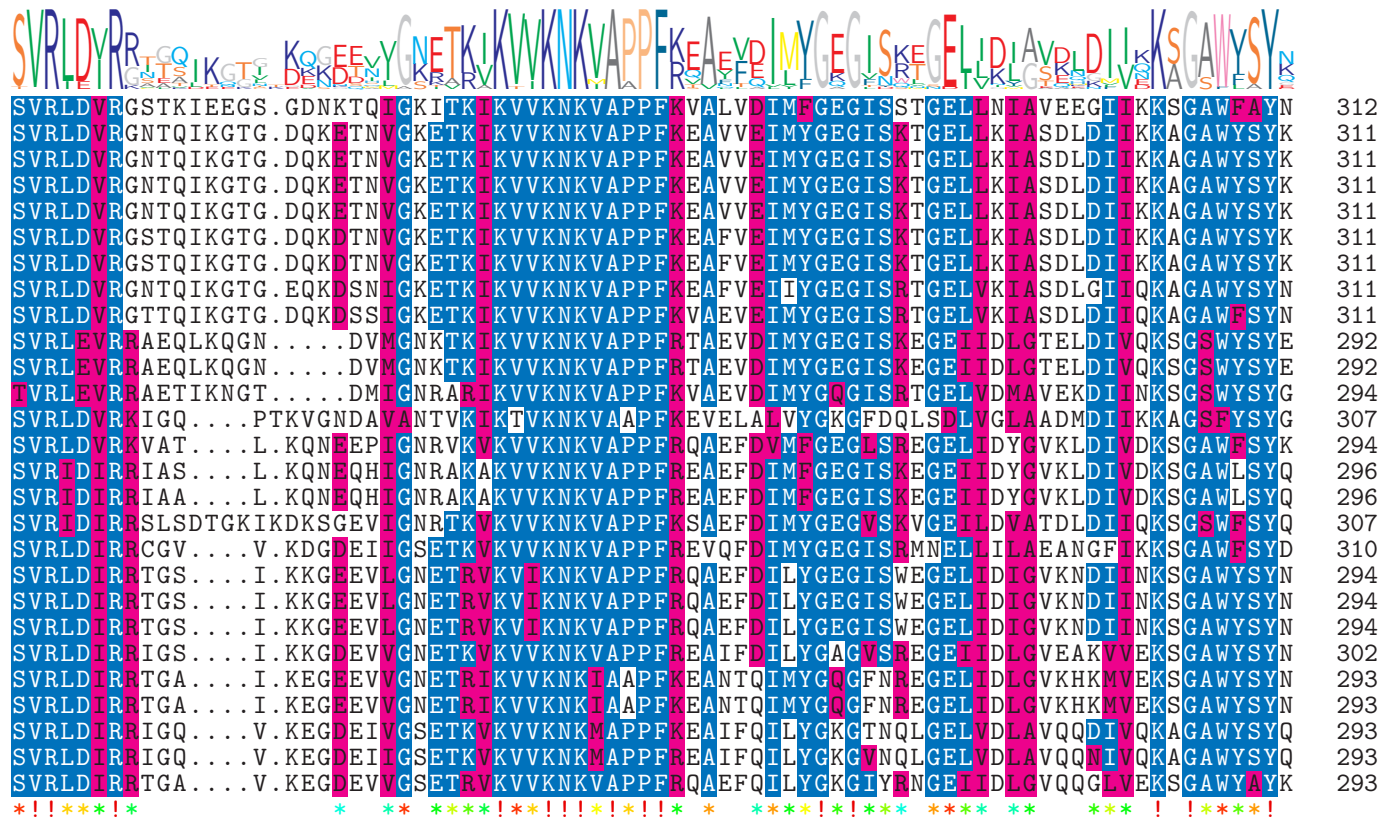
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consensus



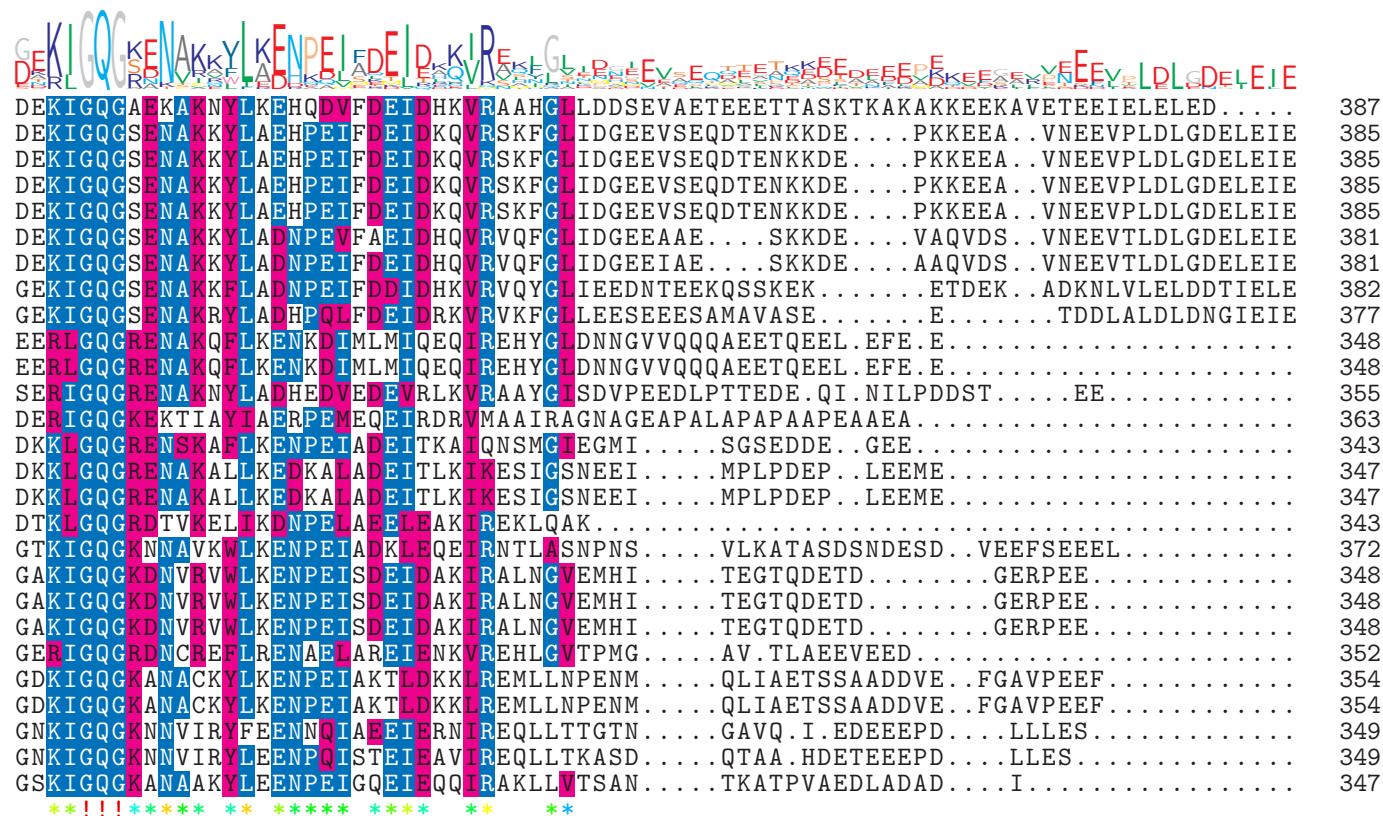
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consensus



logo

|                                             |     |     |     |
|---------------------------------------------|-----|-----|-----|
|                                             |     | IEE |     |
| NTDB id 600 KW2 RS01765 WP 011675413.1      | ... |     | 387 |
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| consensus                                   |     |     |     |

- X non conserved
- X similar
- X ≥ 50% conserved