

```
NTDB id 1177 A1552VC RS01165 WP 000422572.1
NTDB id 1203 PSJM300 01605 AFN76401.1
NTDB id 1019 ACIAD RS04205 WP 004922051.1
NTDB id 1307 DR RS10055 WP 01088596.1
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NTDB id 1202 PSJM300 01600 AFN76400.1
NTDB id 1020 ACIAD RS04210 WP 011182164.1
NTDB id 1060 ABD1 RS04380 WP 000355489.1
NTDB id 1040 HON27 RS13360 WP 000355489.1
NTDB id 1081 FDQ49 RS05335 WP 006581387.1
```

| Position | Sequence                                                                       | Score |
|----------|--------------------------------------------------------------------------------|-------|
| 1        | MEINCYLDGMTHKASDLYITVGCAPILYRVDGELRAQGEALSVADVTALEHAMMODARQAETKQTREANFAVVRD    | 73    |
| 2        | MEFEKILRLMVEKGGSDLFITAGVPPSMKVNGKILPWNKTPMSPEMTRETIVHGVMNEQQRREFTENHECNFAISAR  | 76    |
| 3        | MDFNDLNLMAHKHASDLFITAGVEPSLKINGEITTPVSKTKLDGDMIAQLIDSITTTQKQRQFEIETHECNFAILNR  | 76    |
| 4        | MTSGIDITDILRLAADKGSADIILAGLPPQFKLSGQYDAQGFEPESADTRKLMYSMMNNEQRRIFEKRELDDFSFAIG | 80    |
| 5        | MQITDLLAFGAKNKASDLHLSSGISPMIRVHGDMMRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP   | 76    |
| 6        | MQITDLLAFGAKNKASDLHLSSGISPMIRVHGDMMRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP   | 76    |
| 7        | MDIAELLEFSVKHNASDLHLSSGISPMIRVHGDMMRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP   | 76    |
| 8        | MDIAELLEFSVKHNASDLHLSSGISPMIRVHGDMMRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP   | 76    |
| 9        | MDIAELLEFSVKHNASDLHLSSGISPMIRVHGDMMRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP   | 76    |
| 10       | MDIAELLEFSVKHNASDLHLSSGISPMIRVHGDMMRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP   | 76    |
| 11       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 12       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 13       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 14       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 15       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 16       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 17       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 18       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 19       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 20       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 21       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 22       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 23       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 24       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 25       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 26       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 27       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 28       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 29       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 30       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 31       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 32       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 33       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 34       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 35       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 36       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 37       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 38       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 39       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 40       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 41       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 42       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 43       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 44       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 45       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 46       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 47       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 48       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 49       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 50       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 51       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 52       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 53       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 54       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 55       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 56       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIYQQNLEVDFSFELP    | 76    |
| 57       | MDITELLAFSAKQGASDLHLSSGLPPMIRVDGEVRRINLPPEMSAEVGNMVTSMNDHQRKIY                 |       |

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| Position | Sequence        | Conservation Score (bits) |
|----------|-----------------|---------------------------|
| 1        | SGRFRVSAFFQRELP | 0.1                       |
| 2        | GAVIRRTETRIPT   | 0.1                       |
| 3        | FEEELKLP        | 0.1                       |
| 4        | EVLQN           | 0.1                       |
| 5        | LAIAKRGLVL      | 0.1                       |
| 6        | VVGATGSGKST     | 0.1                       |
| 7        | MAAMTGYRN       | 0.1                       |
| 8        | QHRTGHI         | 0.1                       |
| 9        | ICRFRVS         | 0.1                       |
| 10       | AFYQRLAGMVLRR   | 0.1                       |
| 11       | ETINPTIED       | 0.1                       |
| 12       | LKLPDVL         | 0.1                       |
| 13       | KKALTKRGLV      | 0.1                       |
| 14       | FVGATGTGKST     | 0.1                       |
| 15       | SLAAMIGYRN      | 0.1                       |
| 16       | KNSSGHI         | 0.1                       |
| 17       | EKNERFRVS       | 0.1                       |
| 18       | SAFQQRDMPGMV    | 0.1                       |
| 19       | IRRIETIKIP      | 0.1                       |
| 20       | SPDDLHL         | 0.1                       |
| 21       | LPILKELAM       | 0.1                       |
| 22       | SKRGITIF        | 0.1                       |
| 23       | SGATGTGKST      | 0.1                       |
| 24       | SLASMIQHRN      | 0.1                       |
| 25       | QHSKGI          | 0.1                       |
| 26       | DKARFRVNAFM     | 0.1                       |
| 27       | QRGVNCV         | 0.1                       |
| 28       | GMRLIPT         | 0.1                       |
| 29       | TVRTIAEM        | 0.1                       |
| 30       | LQPTVID         | 0.1                       |
| 31       | IANAPRGLVL      | 0.1                       |
| 32       | VTGPTGSGKST     | 0.1                       |
| 33       | TLASMI          | 0.1                       |
| 34       | DHINTTKL        | 0.1                       |
| 35       | HI              | 0.1                       |
| 36       | NVARFRVNAFN     | 0.1                       |
| 37       | IGRGPAAV        | 0.1                       |
| 38       | FRTIPSTVL       | 0.1                       |
| 39       | SLLEELKAPS      | 0.1                       |
| 40       | SIFQKIAES       | 0.1                       |
| 41       | PRGMVL          | 0.1                       |
| 42       | VTGPTGSGKST     | 0.1                       |
| 43       | TLAAMINY        | 0.1                       |
| 44       | INETQPAHI       | 0.1                       |
| 45       | NVARFRVNAFN     | 0.1                       |
| 46       | TGRGPA          | 0.1                       |
| 47       | AAV             | 0.1                       |
| 48       | FRTIPSTVL       | 0.1                       |
| 49       | SLLEELKAPS      | 0.1                       |
| 50       | SIFQKIAES       | 0.1                       |
| 51       | PRGMVL          | 0.1                       |
| 52       | VTGPTGSGKST     | 0.1                       |
| 53       | TLAAMINY        | 0.1                       |
| 54       | INETQPAHI       | 0.1                       |
| 55       | NVGRFRVNAFH     | 0.1                       |
| 56       | QAARGCS         | 0.1                       |
| 57       | AAV             | 0.1                       |
| 58       | FRTIPTV         | 0.1                       |
| 59       | IPSTLE          | 0.1                       |
| 60       | QLDAPE          | 0.1                       |
| 61       | IFSKIANYEK      | 0.1                       |
| 62       | GLVL            | 0.1                       |
| 63       | VTGPTGSGKST     | 0.1                       |
| 64       | TLAAMVNY        | 0.1                       |
| 65       | VNAH            | 0.1                       |
| 66       | NKHI            | 0.1                       |
| 67       | NVGRFRVNAFH     | 0.1                       |
| 68       | QAARGCS         | 0.1                       |
| 69       | AAV             | 0.1                       |
| 70       | FRTIPTV         | 0.1                       |
| 71       | IPSTLE          | 0.1                       |
| 72       | QLDAPE          | 0.1                       |
| 73       | IFSKIANYEK      | 0.1                       |
| 74       | GLVL            | 0.1                       |
| 75       | VTGPTGSGKST     | 0.1                       |
| 76       | TLAAMVNY        | 0.1                       |
| 77       | VNAH            | 0.1                       |
| 78       | NKHI            | 0.1                       |
| 79       | NLARFRVNAFN     | 0.1                       |
| 80       | QSRGAA          | 0.1                       |
| 81       | AAV             | 0.1                       |
| 82       | FRTIPSEIL       | 0.1                       |
| 83       | SMEDL           | 0.1                       |
| 84       | GLGPIFK         | 0.1                       |
| 85       | EMASFS          | 0.1                       |
| 86       | RGLVL           | 0.1                       |
| 87       | VTGPTGSGKST     | 0.1                       |
| 88       | TLAAVIDY        | 0.1                       |
| 89       | INSSRYEHI       | 0.1                       |
| 90       | NLARFRVNAFN     | 0.1                       |
| 91       | QSRGAA          | 0.1                       |
| 92       | AAV             | 0.1                       |
| 93       | FRTIPSEIL       | 0.1                       |
| 94       | SMEDL           | 0.1                       |
| 95       | GLGPIFK         | 0.1                       |
| 96       | EMASFS          | 0.1                       |
| 97       | RGLVL           | 0.1                       |
| 98       | VTGPTGSGKST     | 0.1                       |
| 99       | TLAAVIDY        | 0.1                       |
| 100      | INSSRYEHI       | 0.1                       |
| 101      | GVARFRVNAFN     | 0.1                       |
| 102      | QNRGAG          | 0.1                       |
| 103      | AAV             | 0.1                       |
| 104      | FRTIPSKVL       | 0.1                       |
| 105      | TMEELG          | 0.1                       |
| 106      | MGVFRK          | 0.1                       |
| 107      | VS              | 0.1                       |
| 108      | VDVPRGLVL       | 0.1                       |
| 109      | VTGPTGSGKST     | 0.1                       |
| 110      | TLAAMDYL        | 0.1                       |
| 111      | LNNTKY          | 0.1                       |
| 112      | HHI             | 0.1                       |
| 113      | GVARFRVNAFN     | 0.1                       |
| 114      | QNRGAG          | 0.1                       |
| 115      | AAV             | 0.1                       |
| 116      | FRTIPSKVL       | 0.1                       |
| 117      | TMEELG          | 0.1                       |
| 118      | MGVFRK          | 0.1                       |
| 119      | VS              | 0.1                       |
| 120      | VDVPRGLVL       | 0.1                       |
| 121      | VTGPTGSGKST     | 0.1                       |
| 122      | TLAAMDYL        | 0.1                       |
| 123      | LNNTKY          | 0.1                       |
| 124      | HHI             | 0.1                       |
| 125      | GVARFRVNAFN     | 0.1                       |
| 126      | QNVFN           | 0.1                       |
| 127      | QNRGAG          | 0.1                       |
| 128      | AAV             | 0.1                       |
| 129      | FRTIPSKVL       | 0.1                       |
| 130      | TMEELG          | 0.1                       |
| 131      | LGLGKIF         | 0.1                       |
| 132      | FRD             | 0.1                       |
| 133      | ICDYPRGLVL      | 0.1                       |
| 134      | VTGPTGSGKST     | 0.1                       |
| 135      | TLAAMDYL        | 0.1                       |
| 136      | INN             |                           |

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