

|                |                                     |                               |                                                        |    |
|----------------|-------------------------------------|-------------------------------|--------------------------------------------------------|----|
| NTDB id 1029   | TT RS02230 WP 011228203.1           | .....MPVYQYKARDRQGR.L         | VEATIEAEDLRTEARLRDRGLFVAETKEPGKGLQAEVRI                | 55 |
| NTDB id 1169   | A1552VC RS11075 WP 000648511.1      | .....MKATQTLP.LKNYRWKGINSNGKK | VSGQMLAISEIEVRDKLKDQHIQIKKLKKGSVSLAR...                | 60 |
| NTDB id 1402   | DSB67 RS12670 WP 010643257.1        | .....MKTIAPLKNYRWKGINSNGKK    | TSGNVLAMTEIEVRERLDAQHIKIKKLKKGKSISFITK...              | 59 |
| NTDB id 1112   | NGFG RS09215 WP 003689811.1         | .....MAKNGGFSLF.AKKEKRF       | FIFEGRHSASDKLVNGEVSATFEEEAARKKLAKRGIRPLQITRVK.....T... | 61 |
| NTDB id 1113   | AAA85695.1 219..1451( )             | .....MAKNGGFSLF.AKKEKRF       | FIFEGRHSASDKLVNGEVSATFEEEAARKKLAKRGIRPLQITRVK.....T... | 61 |
| NTDB id 227758 | XcfCFBP6975P RS06855 WP 007973903.1 | MSVARSSIKKQPVDRNVSE           | IPFVWEGTDKRGVK.MKGEQQARNANMLRAELRRQGITPTPVVKT          | 71 |
| NTDB id 1252   | GC085 RS07730 WP 011213805.1        | .....MDKNSPPLTFHYQGINAKAQK    | MEGDIQARSLAIAKADLRKQGIVTNKVVKKKRKLFDRL...              | 59 |
| NTDB id 1198   | PSJM300 03950 AFN76868.1            | .....MAQKAIKNSVFTWEGLDKQGA    | IKGELSGVSPALVKAQLRKQGINPQKVRKKSISLFS...                | 58 |
| NTDB id 1016   | ACIAD RS01680 WP 004920476.1        | .....MAAKKTQVMPVFAYEGVDRKG    | IKLKGELPARNMALAKVTTLRKQGITTIRIREKRKNIFEG...            | 60 |
| NTDB id 1059   | ABD1 RS01610 WP 000279215.1         | .....MAVKKAAQMPFTFAYEGVDRKG   | IKGELPARNMALAKVTTLRKQGVTVRNIIEKRKNILEG...              | 60 |
| consensus      |                                     | * * * * *                     | ! * * * * *                                            |    |

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| NTDB id   | 1029   | TT RS02230 WP 011228203.1           | PALERGPGLKDLAIFSRQLATMLGAGITLLQALAILERQTENRKFREILKQVRTDVEGGMAFSEALSCHK.IFSR               | 129 |
| NTDB id   | 1169   | A1552VC RS11075 WP 000648511.1      | .LTHRVVSKSDITITLTRQLATMTTGVPDIVQALKLVGDNHRKAEMKSILAQAITSVEAGTPLSKAMRTASAHFDT              | 133 |
| NTDB id   | 1402   | DSB67 RS12670 WP 010643257.1        | .ISHRVVGKGDIITIFTRQLATMLMTGVPIVQALKLVSENHKKAAEMKSILMSVTRAWEAGTPSMKAMRTASTHFDP             | 132 |
| NTDB id   | 1112   | NGFG RS09215 WP 003689811.1         | .SSKRKITIQEDITVFTRQLSTMIACGLPLMQAFEIVARHGHNPSMTEMLEIRGGVEQGSSLSRAFSNHHPKYFR               | 135 |
| NTDB id   | 1113   | AAA85695.1 219..1451( )             | .SSKRKITIQEDITVFTRQLSTMIAAGLPMLQAFEIVARGHGNPMSMTEMLEIRGGVEQGSSLSRAFSNHHPKYFR              | 135 |
| NTDB id   | 227758 | XcfCFBP6975P RS06855 WP 007973903.1 | .AGKKISPKDIAFFSRQMATTMKSGVPIVGALEIIGEGHKNPMMKMVGQIRADIEGGSSLYEATSRHPVQFDD                 | 144 |
| NTDB id   | 1252   | GCO85 RS07730 WP 011213805.1        | .KNKKITQADITVFSRQLATMIESCIPLVQAFDIVAKGQSNNRKLDLIETIKHDIETGLTLAESLIKHPLYFN                 | 132 |
| NTDB id   | 1198   | PSJM300 03950 AFIN76868.1           | .AGKKIKPMIDIALFTRQMATTMKAGVPLIQSFDITIGEGFDNPNMRKLVDLTKQEVAAGNSFAASSLRKKPPYFDD             | 131 |
| NTDB id   | 1016   | ACIAD RS01680 WP 004920476.1        | .LLKKVKPLDIAIFTRQLATMMKAGVPLVQAFEIVAEGLENPAMDVVVLGLKNEVEGGNTFAGALRKYPQYFDN                | 134 |
| NTDB id   | 1059   | ABD1 RS01610 WP 000279215.1         | .LFKKKVITLDITITFTRLATMMKAGVPLVQGEIFAEGLENPAMREVVLGIKEVEGGNSTFASALRKYPQHFDN                | 134 |
| consensus |        |                                     | * * * * ! * * * * ! * * * ! * * * ! * * * * ! * * * * ! * * * * ! * * * * ! * * * * ! * * |     |

|           |        |                                     |                                                                                                         |     |
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| NTDB id   | 1029   | TT RS02230 WP 011228203.1           | LYVNLVRAGETSGGLDLTLDRLASFLKEELELRGKIRSAMTYPIVIVFVFAVGVAIFLLTGIVPQFAQILTDLGSE                            | 204 |
| NTDB id   | 1169   | A1552VC RS11075 WP 000648511.1      | LYVDLVETGEMSCGNLPEVFERLATYREKSEQLRAKVIKALIYPSPMVVLVALGVSYLMMLTMVIPFEFESMFKGFGAE                         | 208 |
| NTDB id   | 1402   | DSB67 RS12670 WP 010643257.1        | LYTDLTATGEQSCGNLSQVFERLATYREKSEQLRRAKVIKALIYPAMVVILVALGVSYLMMLTRVIPFEFEKMFTGTGGAD                       | 207 |
| NTDB id   | 1112   | NGFG RS09215 WP 003689811.1         | FYCYNLAAGETGCGLVESLCLKLATYKEKTQAIRKKVKKTALTYPSVSVIAVAIGLVFMVMIFVLPAFKFEVYANMGAE                         | 210 |
| NTDB id   | 1113   | AAA85695.1 219..1451( )             | FYCYNLAAGETGCGLVESLCLKLATYKEKTQAIRKKVKKTALTYPSVSVIAVAIGLVFMVMIFVLPAFKFEVYANMGAE                         | 210 |
| NTDB id   | 227758 | XcfCFBP6975P RS06855 WP 007973903.1 | LYRNLVRAGEGACVLETVLDTVANYKENIEALKGKIKKALFYPPAMVMAVAIIVSGILLVFPVPQFEDVFKGFGAE                            | 219 |
| NTDB id   | 1252   | GCO85 RS07730 WP 011213805.1        | LFCNLDAGEKSGSLDIMLDKVATYKEKIEIIKKKIKKALTYPITAVMVALLVTAGLLIYVVPQFESLFKGFGAD                              | 207 |
| NTDB id   | 1198   | PSJM300 03950 AFN76868.1            | LYCNLVDSGEQSGSLETLTLDRVATYKEKTEALKAKIKKAMNYPITAVVLVAVIVTATILLIKVVPQFQDVVFANFGAE                         | 206 |
| NTDB id   | 1016   | ACIAD RS01680 WP 004920476.1        | LFCSLTESGEQSGSLEIMLDRVAVYKEKSEVLKQKIKKAMKYPATVIVVAIVVTIILMVKVPVPFKDLFTSFGD                              | 209 |
| NTDB id   | 1059   | ABD1 RS01610 WP 000279215.1         | LFCSLVESGEQSGALETMLDRVAIYKEKSELLKQKIKKAMKYPATVIVVAIVVTIILMVKVPVPFKDLFASFAD                              | 209 |
| consensus |        |                                     | * * * * ! * * * ! ! * ! ! * * * * * ! * * ! * * * * * * * * ! * ! * ! * * * * * * * * ! * * * * ! * * * |     |

