

|                  |    |        |                              |            |                                                                                  |                 |
|------------------|----|--------|------------------------------|------------|----------------------------------------------------------------------------------|-----------------|
| NTDB             | id | 1192   | PAKAF RS23870 WP 024947914.1 |            | .....MKAQKGFTLIELMIVVAIIGILAATAIPQQYNYVARSEGASALASNPLKTIVEALS.RGWSVKSGTGTE.      | 70              |
| NTDB             | id | 1197   | PSJM300 03940 AFN76866.1     |            | .....MKAQMKGFTLIELMIVVAIIGILAAAIAPAYQDYTVRSNAAAAALAEITPGKIGFEQAINE.EGKTPSLTSTD.. | 71              |
| NTDB             | id | 1191   | AAC28468.1 484..945( )       |            | .....MLKKVKQGFTLIELMIVIAIIGILAAAIAPAYQDYTARAQTETGFKATAGLCTDLGWARADRGSFPNAAALVAG  | 74              |
| NTDB             | id | 305900 | DV179 RS11960 WP 002220239.1 |            | .....MKAITKGFTLIELMIVIAIVGILAAVALPAYQDYTARAQMSEALTLAGEQKSAVVVEYYSDNGTFPNSN....   | 68              |
| NTDB             | id | 1119   | NGFG RS11465 WP 017147169.1  |            | .....MNTLKGFTLIELMIVIAIVGILAAVALPAYQDYTARAQVSEAILLAEQGKSAVTEYYLNHGKWPNENN....    | 68              |
| NTDB             | id | 1109   | OK783 RS10670 WP 157147416.1 |            | .....MNTRLKGFTLIELMIVIAIVGILAAVALPAYQDYTARAQVSEAILLAEGQKSAVTEYYLNHGIWPKDN....    | 68              |
| NTDB             | id | 1400   | DSB67 RS12660 WP 010643261.1 |            | ...MKTNKQKKQKGFTLIELMIVVAIIGILAALAIPAYQDYTKKATMAEFPKIASSTKLAVELCAHEHAADAG....AF  | 72              |
| NTDB             | id | 1188   | NELON RS01755 WP 003772458.1 |            | .....MKANKKGFTLIELMIVIAIIGILAAAIAPAYQDYTVRSKVSEALIASSPKSALSEAFAQTDGITGMTAAAKAF   | 73              |
| NTDB             | id | 1424   | RS RS02795 WP 011000517.1    | MKSMRHLNRV | KVGFTLIELMIVIAIVGILAAAIAPAYQDYTVRARVTEGLSLAAQAALKVSENANAQSDDLVSF.....            | 74              |
| NTDB             | id | 1002   | ACIAD RS15100 WP 004923779.1 |            | .....MNAQKGFTLIELMIVIAIIGILAAAIAPAYTDYTVRRARVSEGLTAASSMKTTVSENILNACALVAGTPSTAG   | 72              |
| NTDB             | id | 1274   | LPP RS09530 WP 011214168.1   |            | .....MRQKGFTLIELMIVVAIIGILAAAIAPAYQDYTIARRVTEGLTLADSACLAVSETAITNNALPATQAATGY     | 71              |
| NTDB             | id | 1258   | GCO85 RS09745 WP 014844212.1 |            | .....MRQKGFTLIELMIVVAIIGILAAAIAPAYQDYTIARRVTEGLTLADSACKLAVSETAITNNALPATQAATGY    | 71              |
| <b>consensus</b> |    |        |                              |            | * *         *         *         *         *                                      | ** ** **** ** * |

|           |    |        |            |             |            |             |                                            |                                         |       |       |
|-----------|----|--------|------------|-------------|------------|-------------|--------------------------------------------|-----------------------------------------|-------|-------|
| NTDB      | id | 1192   | PAKAF      | RS23870     | WP         | 024947914.1 | ..DATKKEVPLGVAAADANKLGTIALKP.....DPADGTADI | TLTFTMG...GAGPKNKGKIITLTR.....T         | 127   |       |
| NTDB      | id | 1197   | PSJM300    | 03940       | AFN76866.1 |             | .....EGYICITDS.TSYCDVDID.....TAADGHI       | ...ECTAKG...GNAGKFDDGKTITLNR.....       | 117   |       |
| NTDB      | id | 1191   | AAC28468.1 | 484..945( ) |            |             | NVIFDS.....ANGLDGKYFAPGGVTVT.PDTGAI        | .NTAFDAG.....ANAGKMTTITPTVIA.....AS     | 127   |       |
| NTDB      | id | 305900 | DV179      | RS11960     | WP         | 002220239.1 | .....TSAGTAAAS.NEIKGKYVASVKVEGNA.SVASI     | .TATMNSG...NVNKDIKGTILV.....LVGKQN      | 123   |       |
| NTDB      | id | 1119   | NGGF       | RS11465     | WP         | 017147169.1 | .....TSACVASPPTDIKKGYVKEVEVKNQ....VV.      | .TATMLSS...GVNNEIKGKLS.....LWGRRE       | 120   |       |
| NTDB      | id | 1109   | OK783      | RS10670     | WP         | 157147416.1 | .....TSACVASA.STIKGKYVQKVEVAKG....VV.      | .TAQMAST...GVNKEIQDKLS.....LWAKRQ       | 119   |       |
| NTDB      | id | 1400   | DSB67      | RS12660     | WP         | 010643261.1 | KTKC..HQTANCIPAA...FTLNNL.TVT.PAAGAASGAI   | .SITVNANDKG.....PIKQ.....NEKYILTATYA    | 131   |       |
| NTDB      | id | 1188   | NELON      | RS01755     | WP         | 003772458.1 | NKTAAGGGAGCAAAAGTQHASKYVKS.VKVTEASPWDI     | .TVAISATEANGIPTGLDGNTRLFLPLVNK.AVP.AATS | 147   |       |
| NTDB      | id | 1424   | RS         | RS02795     | WP         | 011000517.1 | .....CSSVF...TPTKNVANLTIAGTGTPVGQII        | .IVTYT.T.....AAGGTTALVPTAAGTALPVSSAP    | 130   |       |
| NTDB      | id | 1002   | ACIAD      | RS15100     | WP         | 004923779.1 | S.....SCVGVQEISASNATTNVATA..TCGASSAGQI     | .IVTMDTT.....KAKGANITLTPT.....YA        | 124   |       |
| NTDB      | id | 1274   | LPP        | RS09530     | WP         | 011214168.1 | V.....SPAATPNVASI..AIGA..NGVI              | .TITY.TA.....AAGGCTIVMTPTL.....QA       | 112   |       |
| NTDB      | id | 1258   | GCO85      | RS09745     | WP         | 014844212.1 | V.....SPAATPNVQSI..AIGA..NGVI              | .TITY.TA.....AAGCTIIMTPTL.....QA        | 112   |       |
| consensus |    |        |            |             |            |             | * * *                                      | * * *                                   | * * * | * * * |

|           |    |        |            |         |        |             |            |                         |              |              |     |
|-----------|----|--------|------------|---------|--------|-------------|------------|-------------------------|--------------|--------------|-----|
| NTDB      | id | 1192   | PAKAF      | RS23870 | WP     | 024947914.1 | AADGLWKC   | TSD.....                | QDEQFIPKGC   | CSK.....     | 150 |
| NTDB      | id | 1197   | PSJM300    | 03940   | AFN    | 76866.1     | TADGEWSC   | AST.....                | LDAYKYPKGC   | CS.....      | 139 |
| NTDB      | id | 1191   | AAC28468.1 | 484..   | 945( ) |             | GQISTWTC   | APGA.....               | ANGIETRRLLP  | STCQ*.....   | 153 |
| NTDB      | id | 305900 | DV179      | RS11960 | WP     | 002220239.1 | SGSFSWECKG | .....                   | SVDEKFLPST   | CRTK.....    | 148 |
| NTDB      | id | 1119   | NGFG       | RS11465 | WP     | 017147169.1 | NGSVKWF    | CGQPVTTRADDDTVADA..     | KDGKEIDTKHLP | PSTCRDKASDAK | 166 |
| NTDB      | id | 1109   | OK783      | RS10670 | WP     | 157147416.1 | DGSVKWF    | CGQPVTTRTGDNDDTVA..     | DANNAIDTKHLP | PSTCRDESSAT. | 164 |
| NTDB      | id | 1400   | DSB67      | RS12660 | WP     | 010643261.1 | SGNVTW     | SSECKDATN.....          | AVQTSYCP     | .....        | 154 |
| NTDB      | id | 1188   | NELON      | RS01755 | WP     | 003772458.1 | TGALDWAC   | ASAAKETADKRFGTGTSGVAVGT | LPAKYAPSECK  | .....        | 188 |
| NTDB      | id | 1424   | RS         | RS02795 | WP     | 011000517.1 | SGPIMWTC   | CYAQNKAQAASSVAPS...GTMS | LAAKYAPAE    | CR.....      | 168 |
| NTDB      | id | 1002   | ACIAD      | RS15100 | WP     | 004923779.1 | SGAVTWKC   | TTT.....                | S.DKKYVPSE   | CRG.....     | 147 |
| NTDB      | id | 1274   | LPP        | RS09530 | WP     | 011214168.1 | NGDVTWTC   | TGG.....                | TLALKYRPAS   | CRP.....     | 136 |
| NTDB      | id | 1258   | GC085      | RS09745 | WP     | 014844212.1 | NGDVTWTC   | TGG.....                | TLALKYRPAS   | CRP.....     | 136 |
| consensus |    |        |            |         |        |             | * * ! *    |                         | ** ** ! *    |              |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved