Supplementary Figure 1. Alignment of polyprotein 220 (CP2475) amino acid sequences of the ASFV isolates listed in supplementary Table 1. Conservation of the IFN-γ-inducing nonamer peptides (Table 1) is highlighted in bright green color.

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                    *        20         *        40         *        60         *        80         *       100         *       120         *       140         *
YP_0099272 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
AZP54139.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QIE06881.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QGJ83454.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
AYW34063.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QLF78620.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QTP96400.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QBH90765.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QOY24398.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QSG73791.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QTE18752.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
VFV48026.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QOW03225.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QOW03039.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
VVW94185.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
CAD0059543 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QXP50051.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
CAD7112603 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
AXZ96054.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QED90535.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
VVW94190.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QEY87898.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QGV56805.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QPB67618.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QUQ60377.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QUQ60197.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
SPS73515.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QDL88123.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QIA61506.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QTZ19752.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QIM07715.1 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
QIM07948.1 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
QIM08183.1 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
YP_0097024 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
YP_0097038 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
YP_0097023 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
YP_0097026 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
YP_0097035 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
QZK26792.1 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
YP_0097036 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRVIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
QID21266.1 : MGNRGSSTSSRPLPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTDGAASI : 150
P0CA04.1   : MGNRGSSTSSRPPPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
P0CA02.1   : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIKAISKIGFKIDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
YP_0097029 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRSFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIKAISKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETICKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
AXB50010.1 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRSFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIKAISKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETICKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
AXB49666.1 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRSFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIKAISKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETICKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
CAD7112308 : MGNRGSSTSTRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIKAISKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETICKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
QRY19118.1 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIKAISKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETICKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
P0CA01.1   : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIKAISKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETICKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
YP_0097028 : MGNRGSSTSSRPPLSSEANIYAKLQDHIQRQTRPFAGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIKAISKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETICKMIADAINQEFIDLGQDKLIDTTEGAASI : 150
P0CA03.1   : MGNRGSSTSSRPPPSSEANIYAKLQDHIQRQTRPFSGGGYFNGGGDKNPVQHIKDYHIDSVSSKAKLRIIEGIIRAIAKIGFKVDTKQPIEDILKDIKKQLPDPRAGSTFVKNAEKQETVCKMIADAINQEFIDLGQDKLIDTTEGAASI : 150

                    160         *        180         *        200         *        220         *        240         *        260         *        280         *        300
YP_0099272 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILTPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
AZP54139.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILTPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QIE06881.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILTPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QGJ83454.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILTPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
AYW34063.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILTPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QLF78620.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILTPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QTP96400.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILTPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QBH90765.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILTPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
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QOY24398.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QSG73791.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QTE18752.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
VFV48026.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QOW03225.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QOW03039.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
VVW94185.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
CAD0059543 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QXP50051.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
CAD7112603 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
AXZ96054.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QED90535.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
VVW94190.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QEY87898.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QGV56805.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QPB67618.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QUQ60377.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QUQ60197.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
SPS73515.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QDL88123.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QIA61506.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QTZ19752.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QIM07715.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QIM07948.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QIM08183.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
YP_0097024 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
YP_0097038 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
YP_0097023 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
YP_0097026 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
YP_0097035 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QZK26792.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
YP_0097036 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
QID21266.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAPPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
P0CA04.1   : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
P0CA02.1   : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQISILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300
YP_0097029 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLSDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLKTDEVDIIKILNDTNSVLGTKNFGKVLSYTLCNLGIAATVANKINKA : 300
AXB50010.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLSDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLKTDEVDIIKILNDTNSVLGTKNFGKVLSYTLCNLGIAATVANKINKA : 300
AXB49666.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLSDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLKTDEVDIIKILNDTNSVLGTKNFGKVLSYTLCNLGIAATVANKINKA : 300
CAD7112308 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLSDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLKTDEVDIIKILNDTNSVLGTKNFGKVLSYTLCNLGIAATVANKINKA : 300
QRY19118.1 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLSDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLKTDEVDIIKILNDTNSVLGTKNFGKVLSYTLCNLGIAATVANKINKA : 300
P0CA01.1   : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLSDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLKTDEVDIIKILNDTNSVLGTKNFGKVLSYTLCNLGIAATVANKINKA : 300
YP_0097028 : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLSDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLKTDEVDIIKILNDTNSVLGTKNFGKVLSYTLCNLGIAATVANKINKA : 300
P0CA03.1   : CRQIVLYINSLTHGLRAEYLDVHGSIENTLENIKLLNDAIKQLHERMVTEVTKAAPNEEVINAVTMIEAVYRRLLNEQNLQINILTNFIDNILAPTQKELDKLQTDEVDIIKLLNDTNSVLGTKNFGKVLSYTLCNLGIAASVANKINKA : 300

                    *        320         *        340         *        360         *        380         *        400         *        420         *        440         *
YP_0099272 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
AZP54139.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QIE06881.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QGJ83454.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
AYW34063.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QLF78620.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QTP96400.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QBH90765.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QOY24398.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QSG73791.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QTE18752.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
VFV48026.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QOW03225.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QOW03039.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
VVW94185.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
CAD0059543 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QXP50051.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
CAD7112603 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
AXZ96054.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QED90535.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
VVW94190.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
QEY87898.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIFAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF : 450
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QGV56805.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QPB67618.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QUQ60377.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QUQ60197.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
SPS73515.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QDL88123.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QIA61506.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QTZ19752.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QIM07715.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QIM07948.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QIM08183.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
YP_0097024 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
YP_0097038 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
YP_0097023 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
YP_0097026 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
YP_0097035 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QZK26792.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
YP_0097036 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
QID21266.1 : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
P0CA04.1   : LQKVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
P0CA02.1   : LQRVGLKVEQYLQSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENNCAKKGGDEVKTPLDKRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
YP_0097029 : LQRVGLKVEQYLHSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENNCAKKGGDEEKTPLDKRMEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGMKLVKEIALTPNITKLRDALSRINDMGTIALDLSLIGF :  450
AXB50010.1 : LQRVGLKVEQYLHSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENNCAKKGGDEEKTPLDKRMEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGMKLVKEIALTPNITKLRDALSRINDMGTIALDLSLIGF :  450
AXB49666.1 : LQRVGLKVEQYLHSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENNCAKKGGDEEKTPLDKRMEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGMKLVKEIALTPNITKLRDALSRINDMGTIALDLSLIGF :  450
CAD7112308 : LQRVGLKVEQYLHSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENNCAKKGGDEEKTPLDKRMEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGMKLVKEIALTPNITKLRDALSRINDMGTIALDLSLIGF :  450
QRY19118.1 : LQRVGLKVEQYLHSKNWAEFDKELDLKKFSGLVSAENIAEFEKAVNLLRQTFNERHKILENNCAKKGGDEEKTPLDKRMEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGMKLVKEIALTPNITKLRDALSRINDMGTIALDLSLIGF :  450
P0CA01.1   : LQRVGLKVEQYLHSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENNCAKKGGDGEKTPLDKRMEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGMKLVKEIALTPNITKLRDALSRINDMGTIALDLSLIGF :  450
YP_0097028 : LQRVGLKVEQYLHSKNWAEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENNCAKKGGDEEKTPLDKRMEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGMKLVKEIALTPNITKLRDALSRINDMGTIALDLSLIGF :  450
P0CA03.1   : LQKVGLKVEQYLQSKNWEEFDKELDLKRFSGLVSAENIAEFEKAVNLLRQTFNERHKILENSCAKKGGDEEKTPLDRRIEAQRLDRKHILMEFLNKSTQAYNDFLENVKKIGIKLVKEIALTPNITRLRDALSRINDMGTIALDLSLIGF :  450
                                                                                                                                                   l

                     460         *        480         *        500         *        520         *        540         *        560         *        580         *        600
YP_0099272 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
AZP54139.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QIE06881.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QGJ83454.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
AYW34063.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QLF78620.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QTP96400.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QBH90765.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QOY24398.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QSG73791.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QTE18752.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
VFV48026.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QOW03225.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QOW03039.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
VVW94185.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
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QXP50051.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
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AXZ96054.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QED90535.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
VVW94190.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QEY87898.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QGV56805.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
QPB67618.1 : YTNAAAREERETFLTQLTLVKNVLEEISKTDPNFKNLYDSCSRLLQIIDFYTDIVQKKYGGEEDCECTRVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
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CAD7112308 : YNNAAAREERETFLIQLTLVKNVLEELAKTDPNFKNLYDSCFRLLQIIDFYTDIVQKKYGGGEDGECTKVGGAALTVEELGLSKAARSQVDLNQAINTFMYYYYVAQIYSNLTHNKQEFQSYEENYATILGDAIAGRLMQLDTEKNARIN :  600
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                    *       620         *       640         *       660         *       680         *       700         *       720         *       740         *
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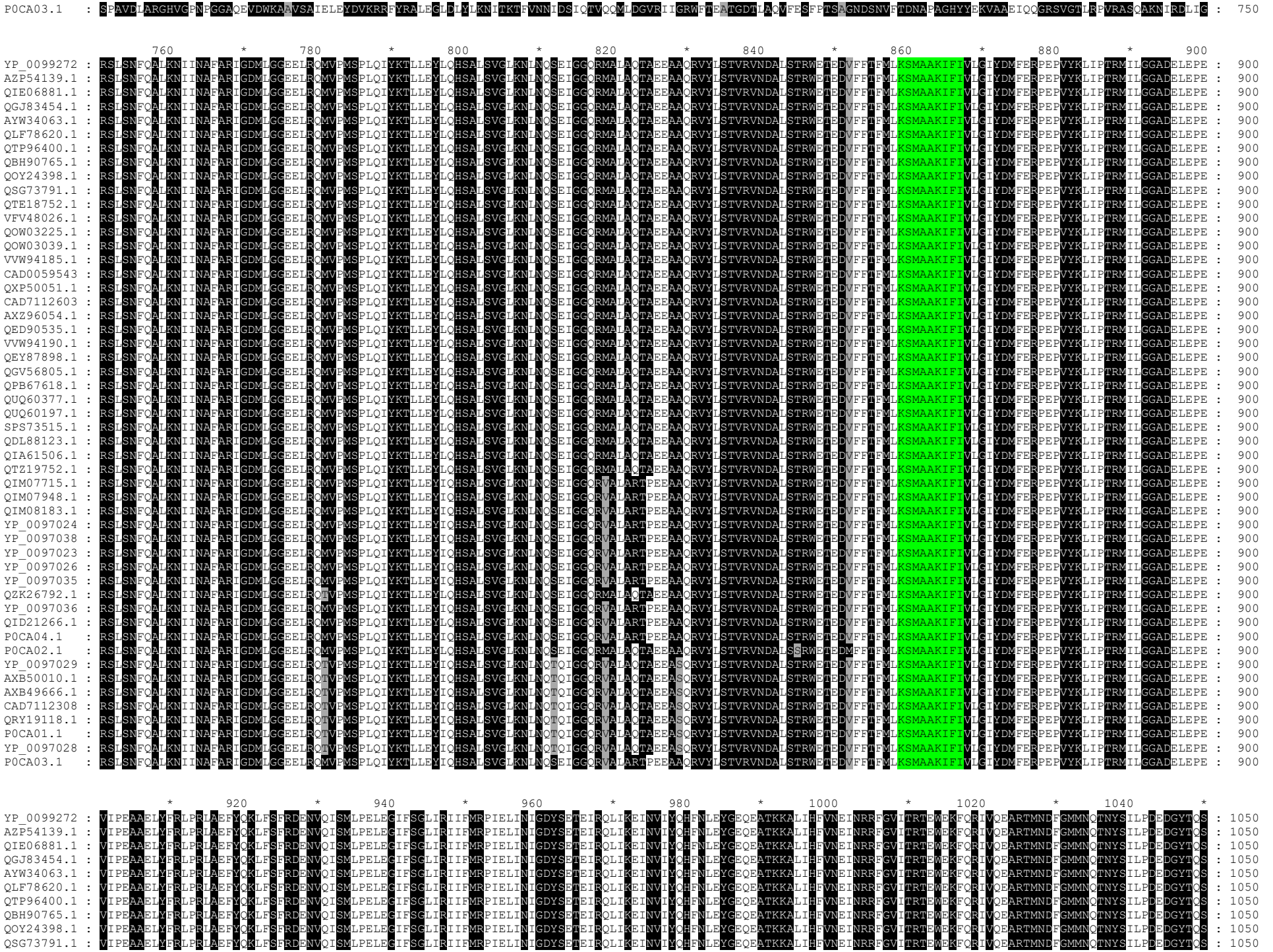
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760 * 780 * 800 * 820 * 840 * 860 * 880 * 900
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QGV56805.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QPB67618.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QUQ60377.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QUQ60197.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
SPS73515.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QDL88123.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QIA61506.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QTZ19752.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QIM07715.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QIM07948.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QIM08183.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
YP_0097024 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
YP_0097038 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
YP_0097023 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
YP_0097026 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
YP_0097035 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QZK26792.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
YP_0097036 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QID21266.1 : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYIQS : 1050
P0CA04.1   : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
P0CA02.1   : VIPEAAELYFRLPRLAEFYQKLFSFRDGNVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
YP_0097029 : VIPEAAGLYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRVIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEAVKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
AXB50010.1 : VIPEAAGLYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRVIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEAVKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
AXB49666.1 : VIPEAAGLYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRVIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEAVKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
CAD7112308 : VIPEAAGLYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRVIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEAVKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
QRY19118.1 : VIPEAAGLYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRVIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEAVKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
P0CA01.1   : VIPEAAGLYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRVIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEAVKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
YP_0097028 : VIPEAAGLYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRVIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEAVKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050
P0CA03.1   : VIPEAAELYFRLPRLAEFYQKLFSFRDENVQISMLPELEGIFSGLIRIIFMRPIELINIGDYSETEIRQLIKEINVIYQHFNLEYGEQEATKKALIHFVNEINRRFGVITRTEWEKFQRIVQEARTMNDFGMMNQTNYSILPDEDGYTQS : 1050

                       1060       *      1080       *      1100       *      1120       *      1140       *      1160       *      1180       *      1200
YP_0099272 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
AZP54139.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QIE06881.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QGJ83454.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
AYW34063.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QLF78620.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QTP96400.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QBH90765.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QOY24398.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QSG73791.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QTE18752.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
VFV48026.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QOW03225.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QOW03039.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
VVW94185.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
CAD0059543 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QXP50051.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
CAD7112603 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
AXZ96054.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QED90535.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
VVW94190.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QEY87898.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QGV56805.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QPB67618.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
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QUQ60377.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QUQ60197.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
SPS73515.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QDL88123.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QIA61506.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QTZ19752.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QIM07715.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QIM07948.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QIM08183.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
YP_0097024 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
YP_0097038 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
YP_0097023 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
YP_0097026 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
YP_0097035 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QZK26792.1 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
YP_0097036 : SQLLPSDRFISPSTQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
QID21266.1 : SQLLPSDRFISPSTQPSPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
P0CA04.1   : SQLLPSDRFISPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKDHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200
P0CA02.1   : SQLLPSDRFIGPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKISYQELIRQAINELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKALDLDMIQKS : 1200
YP_0097029 : SQLLPSDRFIGPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIQQATNELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNTFRNNIKALDLDMIQKS : 1200
AXB50010.1 : SQLLPSDRFIGPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIQQATNELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNTFRNNIKALDLDMIQKS : 1200
AXB49666.1 : SQLLPSDRFIGPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIQQATNELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNTFRNNIKALDLDMIQKS : 1200
CAD7112308 : SQLLPSDRFIGPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIQQATNELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNTFRNNIKALDLDTIQKS : 1200
QRY19118.1 : SQLLPSDRFIGPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIQQATNELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNTFRNNIKALDLDTIQKS : 1200
P0CA01.1   : SQLLPSDRFIGPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIQQATNELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNTFRNNIKALDLDTIQKS : 1200
YP_0097028 : SQLLPSDRFIGPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIQQATNELKKEHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNTFRNNIKALDLDTIQKS : 1200
P0CA03.1   : SQLLPSDRFISPSSQPTPKWRPALYNIDSVDVQTGMLQPNSQWDLVQKFRKQLSEMFEDPSLQQELGKVSYQELIRQAINELKKDHTDKIQIVSKLIQGSESLADTDVNKIFLFHETVITGLNLLSAIYVLLNNFRNNIKGLDLDTIQKS : 1200

                    *      1220       *      1240       *      1260       *      1280       *      1300       *      1320       *      1340       *
YP_0099272 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
AZP54139.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QIE06881.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QGJ83454.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
AYW34063.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QLF78620.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QTP96400.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QBH90765.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QOY24398.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QSG73791.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QTE18752.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
VFV48026.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QOW03225.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QOW03039.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
VVW94185.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
CAD0059543 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QXP50051.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
CAD7112603 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
AXZ96054.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QED90535.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
VVW94190.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QEY87898.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QGV56805.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QPB67618.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QUQ60377.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QUQ60197.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
SPS73515.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QDL88123.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QIA61506.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QTZ19752.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAAAAAQDRNLTTETLFAWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1350
QIM07715.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
QIM07948.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
QIM08183.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
YP_0097024 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
YP_0097038 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
YP_0097023 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
YP_0097026 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
YP_0097035 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
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QZK26792.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVIKEINMRLSMVYPDPTTEAATVQDRNLT-TETLFVWIVPYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
YP_0097036 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDVRLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
QID21266.1 : IIEWLRETQAANVNRANLIDWLGRKHGAISEIRNPGLVVKENDARLSRVYPDPTTNATAPQDQNLV-TETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
P0CA04.1   : IIEWLRETQAANVNHANLIDWLGRKHGAISEIRNPGLVVKENDARLSRVYPDPTTN-AIAPQDQNLVTETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1349
P0CA02.1   : IIEWLRETQPPDVNHANLLDWLGRKHGAISEIRNPGLVVKANNARLSEVYPDPTTD-ANTPQDRNLTTETLFAWIVQYVGIPAGGGVRPEQELAARYLVDNQRIMQLLLTNIFEITSSFNKMIQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
YP_0097029 : IVEWLRETQAANVNHANLIDWLGRRHGDISEIRNPGLVIKANDARLSMVYPDPTTDPTLPQDQNLT-TETLFAWIEQYVGIPAGGGIRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKLVQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
AXB50010.1 : IVEWLRETQAANVNHANLIDWLGRRHGDISEIRNPGLVIKANDARLSMVYPDPTTDPTLPQDQNLT-TETLFAWIEQYVGIPAGGGIRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKLVQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
AXB49666.1 : IVEWLRETQAANVNHANLIDWLGRRHGDISEIRNPGLVIKANDARLSMVYPDPTTDPTLPQDQNLT-TETLFAWIEQYVGIPAGGGIRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKLVQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
CAD7112308 : IIEWLRETQAANVNRANLIDWLGRRHGDISEIRNPGLVIKANDARLSEVYPDPTTDATAPLDRNLV-TETLFAWFTRFVGIPADGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKLVQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
QRY19118.1 : IIEWLRETQAANVNRANLIDWLGRRHGDISEIRNPGLVIKANDARLSEVYPDPTTDATAPLDRNLV-TETLFAWFTRFVGIPADGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKLVQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
P0CA01.1   : IIEWLRETQAANVNRANLIDWLGRRHGDISEIRNPGLVIKANDARLSEVYPDPTTDATAPLDRNLV-TETLFAWFTRFVGIPADGAVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKLVQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
YP_0097028 : IIEWLRETQAANVNRANLIDWLGRRHGDISEIRNPGLVIKANDARLSEVYPDPTTDATAPLDRNLV-TETLFAWFTRFVGIPADGGVRPEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKLVQVRFPETSTAHVHLDFTGLISLIDSLM : 1349
P0CA03.1   : IIEWLRET-PANVNHANLIDWLGRKHGAISEIRNPGLVIKEINMRLSEVYPDPTTE-ANVPQDRNLTTETLFAWIVPYVGIPAGGGVRAEQELAARYLVDNQRIMQLLLTNIFEMTSSFNKMVQVRFPETSTAQVHLDFTGLISLIDSLM : 1348

                    1360        *      1380        *      1400        *      1420        *      1440        *      1460        *      1480        *      1500
YP_0099272 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
AZP54139.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QIE06881.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QGJ83454.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
AYW34063.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QLF78620.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QTP96400.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKSYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QBH90765.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QOY24398.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QSG73791.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QTE18752.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
VFV48026.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QOW03225.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QOW03039.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
VVW94185.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
CAD0059543 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QXP50051.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
CAD7112603 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
AXZ96054.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QED90535.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
VVW94190.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QEY87898.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QGV56805.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QPB67618.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QUQ60377.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QUQ60197.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
SPS73515.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QDL88123.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QIA61506.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QTZ19752.1 : ADTKYFLDLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYTLLTKPYNVLQLRGGAQRRDAANIQINNNPQSSERFEQYGRVFSRLVFYDALENNSGLRVEQVALGDFRLSNLIRTNN : 1500
QIM07715.1 : ADTKYFLNLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYILLTKPYNVLQLRGGVQRRDAANIQINNNPQPSERFEQYGRVFSRLVFYDALENNSGLRVEQVVLGDFRLSNLIRTNN : 1499
QIM07948.1 : ADTKYFLNLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYILLTKPYNVLQLRGGVQRRDAANIQINNNPQPSERFEQYGRVFSRLVFYDALENNSGLRVEQVVLGDFRLSNLIRTNN : 1499
QIM08183.1 : ADTKYFLNLLRPHIDKNIIQYYENRSNPGSFYWLEEHLIDKLIKPPTDAGGRPLPGGELGLEGVNQIINKTYILLTKPYNVLQLRGGVQRRDAANIQINNNPQPSERFEQYGRVFSRLVFYDALENNSGLRVEQVVLGDFRLSNLIRTNN : 1499
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QOW03225.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QOW03039.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
VVW94185.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
CAD0059543 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QXP50051.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
CAD7112603 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
AXZ96054.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QED90535.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
VVW94190.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QEY87898.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QGV56805.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QPB67618.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QUQ60377.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QUQ60197.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
SPS73515.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QDL88123.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QIA61506.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QTZ19752.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNN-NVPATGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QIM07715.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QIM07948.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QIM08183.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
YP_0097024 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
YP_0097038 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
YP_0097023 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
YP_0097026 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
YP_0097035 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QZK26792.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNNINVPTTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDIVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
YP_0097036 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSVIYYNNNINVPMTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDVVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
QID21266.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSIIYYNNN-NVPTTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDIVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1796
P0CA04.1   : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLMGLLGANNDSIIYYNNN-NVPTTGLSVGQAALRGIGGVFRPNVTLMPLGDAQNNTSDIVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1796
P0CA02.1   : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLRANNDSVIYYNNN-NVPMTGLSIGQAAMRGIGGVFRPNVTLMPLGDAQNNTSDIVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1796
YP_0097029 : YLKENYRANLPLYNKMFNILISQGELLKQFIQYTKVQLARPNLMALLGANNDAIIYYNN-INVPNTGLSIGQAALRGIGSVFRPDITLMPLGDAQNNTNDIVRKRLIAVINGVIRGSLTLANSAMEVLHELTDHPIYLETEEHFIQNYMS : 1797
AXB50010.1 : YLKENYRANLPLYNKMFNILISQGELLKQFIQYTKVQLARPNLMALLGANNDAIIYYNN-INVPNTGLSIGQAALRGIGSVFRPDITLMPLGDAQNNTNDIVRKRLIAVINGVIRGSLTLANSAMEVLHELTDHPIYLETEEHFIQNYMS : 1798
AXB49666.1 : YLKENYRANLPLYNKMFNILISQGELLKQFIQYTKVQLARPNLMALLGANNDAIIYYNN-INVPNTGLSIGQAALRGIGSVFRPDITLMPLGDAQNNTNDIVRKRLIAVINGVIRGSLTLANSAMEVLHELTDHPIYLETEEHFIQNYMS : 1798
CAD7112308 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTKVQLARPNLTALLGANNDSIIYYNNN-NVPNTGLTIGQAALRGIGSVFRPDITLMPLGNAQNNTNDVVRKRLIAVINGIIRGSLTLANSAMEVLHELTDHPIYFETEEHFIQNYMS : 1796
QRY19118.1 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTKVQLARPNLTALLGANNDSIIYYNNN-NVPNTGLTVGQAALRGIGSVFRPDITLMPLGNAQNNTNDVVRKRLIAVINGIIRGSLTLANSAMEVLHELTDHPIYFETEEHFIQNYMS : 1796
P0CA01.1   : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTKVQLARPNLTALLGANNDSIIYYNNN-NVPNTGLTVGQAALRGIGSVFRPDITLMPLGNAQNNTNDVVRKRLIAVINGIIRGSLTLANSAMEVLHELTDHPIYFETEEHFIQNYMS : 1796
YP_0097028 : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTKVQLARPNLTALLGANNDSIIYYNNN-NVPNTGLTVGQAALRGIGSVFRPDITLMPLGNAQNNTNDVVRKRLIAVINGIIRGSLTLANSAMEVLHELTDHPIYFETEEHFIQNYMS : 1796
P0CA03.1   : YLKENYRANLPLFNKMFNILISQGELLKQFIQYTNVQLARPNLTALLGANNDSVIYYNNNINVPMTGLSVGQAAMRGIGGVFRPNVTLMPLGDAQSNTSDIVRKRLVAVIDGIIRGSHTLADSAMEVLHELTDHPIYLETEEHFIQNYMS : 1796
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                        *     1820         *     1840         *     1860         *     1880         *     1900         *     1920         *     1940         *
YP_0099272 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
AZP54139.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QIE06881.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QGJ83454.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
AYW34063.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QLF78620.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QTP96400.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QBH90765.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QOY24398.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QSG73791.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QTE18752.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
VFV48026.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QOW03225.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QOW03039.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
VVW94185.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
CAD0059543 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QXP50051.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
CAD7112603 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
AXZ96054.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QED90535.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
VVW94190.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QEY87898.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QGV56805.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QPB67618.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QUQ60377.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QUQ60197.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
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SPS73515.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QDL88123.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QIA61506.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QTZ19752.1 : RYNKEPLMPFSLSLYYLHDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QIM07715.1 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAHEQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QIM07948.1 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAHEQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QIM08183.1 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAHEQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
YP_0097024 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
YP_0097038 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAHEQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
YP_0097023 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAHEQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
YP_0097026 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
YP_0097035 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAHEQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QZK26792.1 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGDDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
YP_0097036 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIVNIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
QID21266.1 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1946
P0CA04.1   : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1946
P0CA02.1   : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIVNIRSFKTVMTYNENTFGGVNLISEDRNDKPIITAGIGMNAVYSLRKT : 1946
YP_0097029 : RYNKEPLMPFSLSLYYLRDLRMENNEVYDPLLYPNLESGSPEFKILYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYIHAIQALRFIINIRSFKTVMTYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1947
AXB50010.1 : RYNKEPLMPFSLSLYYLRDLRMENNEVYDPLLYPNLESGSPEFKILYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYIHAIQALRFIINIRSFKTVMTYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1948
AXB49666.1 : RYNKEPLMPFSLSLYYLRDLRMENNEVYDPLLYPNLESGSPEFKILYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYIHAIQALRFIINIRSFKTVMTYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1948
CAD7112308 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKILYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYIHAIQALRFIINIRSFKTVMTYNENTFGGVNLIGEDRDDKPIITEGIGMNAVYSLRKT : 1946
QRY19118.1 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKILYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYIHAIQALRFIINIRSFKTVMTYNENTFGGVNLIGEDRDDKPIITEGIGMNAVYSLRKT : 1946
P0CA01.1   : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKILYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYIHAIQALRFIINIRSFKTVMTYNENTFGGVNLIGEDRDDKPIITEGIGMNAVYSLRKT : 1946
YP_0097028 : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKILYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYIHAIQALRFIINIRSFKTVMTYNENTFGGVNLISEDRDDKPIITEGIGMNAVYSLRKT : 1946
P0CA03.1   : RYNKEPLMPFSLSLYYLRDLRIENNEVYDPLLYPNLESGSPEFKLLYGTRKLLGNDPVQLSDMPGVQLIMKNYNETVVAREQITPTRFEHFYTHAIQALRFIINIRSFKTVMMYNENTFGGVNLISENRDDKPIITAGIGMNAVYSLRKT : 1946

                  1960        *        1980        *        2000        *        2020        *        2040        *        2060        *        2080        *        2100
YP_0099272 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
AZP54139.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QIE06881.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QGJ83454.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
AYW34063.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QLF78620.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QTP96400.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QBH90765.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QOY24398.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QSG73791.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QTE18752.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
VFV48026.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QOW03225.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QOW03039.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
VVW94185.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
CAD0059543 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QXP50051.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
CAD7112603 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
AXZ96054.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QED90535.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
VVW94190.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QEY87898.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QGV56805.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QPB67618.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QUQ60377.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QUQ60197.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
SPS73515.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QDL88123.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QIA61506.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QTZ19752.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
QIM07715.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
QIM07948.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
QIM08183.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
YP_0097024 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
YP_0097038 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
YP_0097023 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
YP_0097026 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
YP_0097035 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
QZK26792.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDVAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2097
YP_0097036 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELMSKGSAGYMSR : 2097
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QID21266.1 : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDVAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2096
P0CA04.1   : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTTAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2096
P0CA02.1   : LQDVISFVESSYQEEQINNIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDVAEVLNIPNRPPINTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2096
YP_0097029 : LQDVISFVESSYQEEQINNIHKIVSPKSQTRSLGSNRERERIFNLFDMNIMPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTGAPQPDVAVVLNIPNRPPMNTREFMLKLLINPYVTVSISQYGNELLSRGNAGYMSR : 2097
AXB50010.1 : LQDVISFVESSYQEEQINNIHKIVSPKSQTRSLGSNRERERIFNLFDMNIMPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTGAPQPDVAVVLNIPNRPPMNTREFMLKLLINPYVTVSISQYGNELLSRGNAGYMSR : 2098
AXB49666.1 : LQDVISFVESSYQEEQINNIHKIVSPKSQTRSLGSNRERERIFNLFDMNIMPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTGAPQPDVAVVLNIPNRPPMNTREFMLKLLINPYVTVSISQYGNELLSRGNAGYMSR : 2098
CAD7112308 : LQDVISFVESSYQEEQINNIHKIVSPRSQTRSLGSNRERERIFNLFDMNIMPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTAAPQPDVAQVLNIPNRPPMNTREFMLKLLINPYVTVSITQYGNELLFRGNTGYMSR : 2096
QRY19118.1 : LQDVISFVESSYQEEQINNIHKIVSPRSQTRSLGSNRERERIFNLFDMNIMPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTAAPQPDVAQVLNIPNRPPMNTREFMLKLLINPYVTVSITQYGNELLFRGNTGYMSR : 2096
P0CA01.1   : LQDVISFVESSYQEEQINNIHKIVSPRSQTRSLGSNRERERIFNLFDMNIMPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTAAPQPDVAQVLNIPNRPPMNTREFMLKLLINPYVTVSITQYGNELLFRGNAGYMSR : 2096
YP_0097028 : LQDVISFVESSYQEEQINNIHKIVSPRSQTRSLGSNRERERIFNLFDMNIMPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLDTAAPQPDVAQVLNIPNRPPMNTREFMLKLLINPYVTVSITQYGNELLFRGNTGYMSR : 2096
P0CA03.1   : LQDVISFVESSYQEEQINHIHKIVSPKGQTRTLGSNRERERIFNLFDMNIIPINVNALMRSIPLANIYNYDYSFEEIACLMYGISAEKVRSLNTAAPQPDIAEVLNIPNRPPMNTREFMLKLLINPYVSVSITQYGNELLSKGNAGYMSR : 2096
                                                                                                                                         l

                      *       2120        *       2140        *       2160        *       2180        *       2200        *       2220        *       2240        *
YP_0099272 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
AZP54139.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QIE06881.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QGJ83454.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
AYW34063.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QLF78620.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QTP96400.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QBH90765.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QOY24398.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QSG73791.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QTE18752.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
VFV48026.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QOW03225.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QOW03039.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
VVW94185.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
CAD0059543 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QXP50051.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
CAD7112603 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
AXZ96054.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QED90535.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
VVW94190.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QEY87898.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QGV56805.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QPB67618.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QUQ60377.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QUQ60197.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
SPS73515.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QDL88123.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QIA61506.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QTZ19752.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIQNNPTPEIIAAIQNWVQQYRGQITNLIDLIG : 2246
QIM07715.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSEYINQALHELVRTIR-IPQKLRVLRNIIVKNQLIADLTTIREQLVSMRREVENMIQTPEIQNNPTPEVIAAAQNWTQQYRARVDTLINFIG : 2246
QIM07948.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSEYINQALHELVRTIR-IPQKLRVLRNIIVKNQLIADLTTIREQLVSMRREVENMIQTPEIQNNPTPEVIAAAQNWTQQYRARVDTLINFIG : 2246
QIM08183.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSEYINQALHELVRTIR-IPQKLRVLRNIIVKNQLIADLTTIREQLVSMRREVENMIQTPEIQNNPTPEVIAAAQNWTQQYRARVDTLINFIG : 2246
YP_0097024 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSEYINQALHELVRTIR-IPQKLRVLRNIIVKNQLIADLTTIREQLVSMRREVENMIQTPEIQNNPTPEVIAAAQNWTQQYRARVDTLINFIG : 2246
YP_0097038 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSEYINQALHELVRTIR-IPQKLRVLRNIIVKNQLIADLTTIREQLVSMRREVENMIQTPEIQNNPTPEVIAAAQNWTQQYRARVDTLINFIG : 2246
YP_0097023 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSEYINQALHELVRTIR-IPQKLRVLRNIIVKNQLIADLTTIREQLVSMRREVENMIQTPEIQNNPTPEVIAAAQNWTQQYRARVDTLINFIG : 2246
YP_0097026 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSEYINQALHELVRTIR-IPQKLRVLRNIIVKNQLIADLTTIREQLVSMRREVENMIQTPEIQNNPTPEVIAAAQNWTQQYRARVDTLINFIG : 2246
YP_0097035 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSEYINQALHELVRTIR-IPQKLRVLRNIIVKNQLIADLTTIREQLVSMRREVENMIQTPEIQNNPTPEVIAAAQNWTQQYRARVDTLINFIG : 2246
QZK26792.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIVGELNAFRTQLENTRREVNNLVQTPEIQNNPTPEIIAAVQNWGQQYRGQITNLIDLIG : 2246
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QID21266.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIVGELNAFRTQLENTRREVNNLVQTPEIQNNPTPEIIAAVQNWGQQYRGQITNLIDLIG : 2245
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P0CA02.1   : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTLREVNNLVQTPEIQNNPTPEIIAAVQNWGQQYRAQITDLIDLIG : 2245
YP_0097029 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGRERWGHPMSIYINQALHEVVRTIR-LAETVRGLRNVIDRNQIIDELNAFRTQLEDTRREVDNLLQTPEIQNNVIPEIIAAVQNWGQQYRGQITDLIDLIG : 2246
AXB50010.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGRERWGHPMSIYINQALHEVVRTIR-LAETVRGLRNVIDRNQIIDELNAFRTQLEDTRREVDNLLQTPEIQNNVIPEIIAAVQNWGQQYRGQITDLIDLIG : 2247
AXB49666.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGRERWGHPMSIYINQALHEVVRTIR-LAETVRGLRNVIDRNQIIDELNAFRTQLEDTRREVDNLLQTPEIQNNVIPEIIAAVQNWGQQYRGQITDLIDLIG : 2247
CAD7112308 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPFSDYINQALHELVRTIR-IPQNLRVLRNIMVKNQLIADLAAIREQLVRMRREVENMVQTPEIQNNPTPEVIAAAQTWAQQYRARVDFLINFIG : 2245
QRY19118.1 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPFSDYINQALHELVRTIR-IPQNLRVLRNIMVKNQLIADLAAIREQLVRMRREVENMVQTPEIQNNPTPEVIAAAQTWAQQYRARVDFLINFIG : 2245
P0CA01.1   : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPLSDYINQALHELVRTIRIIPQNIRVLRNIMVKNQLIADLAAIREQLVRMRREVENMVQTPEIQNNPTPEVIAAAQTWTQQYRARVDFLINFIG : 2246
YP_0097028 : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPGLAAGIQRGREQWGQPFSDYINQALHELVRTIR-IPQNLRVLRNIMVKNQLIADLAAIREQLVRMRREVENMVQTPEIQNNPTPEVIAAAQTWAQQYRARVDFLINFIG : 2245
P0CA03.1   : IFRGDNALNMGRPKFLSDQIFNKVLFGSLYPTQFDYDEAGPSLAAGIQRGRERWGHPMSIYINQALHEIVRTIR-LAETVRGLRNVIDRNQIIGELNAFRTQLEDTRREVNNLIQTPEIRNNPTPEIIAAVQNWGQQYRGQITDLIDLIG : 2245
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AZP54139.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QIE06881.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QGJ83454.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
AYW34063.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QLF78620.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QTP96400.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QBH90765.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QOY24398.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QSG73791.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QTE18752.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
VFV48026.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QOW03225.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QOW03039.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
VVW94185.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
CAD0059543 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QXP50051.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
CAD7112603 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
AXZ96054.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QED90535.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
VVW94190.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QEY87898.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QGV56805.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
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QUQ60377.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QUQ60197.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
SPS73515.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
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QIA61506.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QTZ19752.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPVLIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
QIM07715.1 : NIGQPNSML-DLIQTITPVTVRAQLGVIFNRHGIPVPHPRQILQTDDEATQWFMTNILNIPAIIMTPFTDLANDLRTFLETLERYVFNVPRWLGPSTGRVARAPVRMAPRD-MRHPISYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
QIM07948.1 : NIGQPNSML-DLIQTITPVTVRAQLGVIFNRHGIPVPHPRQILQTDDEATQWFMTNILNIPAIIMTPFTDLANDLRTFLETLERYVFNVPRWLGPSTGRVARAPVRMAPRD-MRHPISYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
QIM08183.1 : NIGQPNSML-DLIQTITPVTVRAQLGVIFNRHGIPVPHPRQILQTDDEATQWFMTNILNIPAIIMTPFTDLANDLRTFLETLERYVFNVPRWLGPSTGRVARAPVRMAPRD-MRHPISYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
YP_0097024 : NIGQPNSML-DLIQTITPVTVRAQLGVIFNRHGIPVPHPRQILQTDDEATQWFMTNILNIPAIIMTPFTDLANDLRTFLETLERYVFNVPRWLGPSTGRVARAPVRMAPRD-MRHPISYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
YP_0097038 : NIGQPNSML-DLIQTITPVTVRAQLGVIFNRHGIPVPHPRQILQTDDEATQWFMTNILNIPAIIMTPFTDLANDLRTFLETLERYVFNVPRWLGPSTGRVARAPVRMAPRD-MRHPISYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
YP_0097023 : NIGQPNSML-DLIQTITPVTVRAQLGVIFNRHGIPVPHPRQILQTDDEATQWFMTNILNIPAIIMTPFTDLANDLRTFLETLERYVFNVPRWLGPSTGRVARAPVRMAPRD-MRHPISYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
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YP_0097035 : NIGQPNSML-DLIQTITPVTVRAQLGVIFNRHGIPVPHPRQILQTDDEATQWFMTNILNIPAIIMTPFTDLANDLRTFLETLERYVFNVPRWLGPSTGRVARAPVRMAPRD-MRHPISYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
QZK26792.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPILIAPFMILVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHPTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2395
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QID21266.1 : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQALQNDIEAMQWFMTMVINHPPILIAPFMILVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHPTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
P0CA04.1   : NAGQANSMI-NLIQNITPQTAGAQLTALFNIRGLPAPPPRQPLQNDIEAMQWFMTIVINHPPILIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
P0CA02.1   : NAGQANSMI-SLIQNINVQTAGAQLTALFNRRGLPAPPPRQVLQNDIEAIQWFMTIVINHPPILIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394
YP_0097029 : NAGQGGNSMIPLIQIITAQTAAAQLTALFNRRGIPAPVPRQQLQNDIEALQWFMTMVINHPPILIAPFMILVNNLKDFLDTLEQYVYRNPRWLGPRTARIAHPPVGMAPGNI-RYPTSYTENSVLTYIAEQNQEEGPWSIVKQVGVGIQK : 2395
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QRY19118.1 : NVQQPNSLI-QLIQNITPLTVRAQLTTVFIRHGLPVPDPDQALQTDDEATQWFMTNIINQPITMIIPFTDLADDLRIFLETLERYVFNVPRWLGPSTGRVARVPVNMAPGN-MRYRTSYTENSVLTYIAEQNQEEGPWSIVKQVGVGIQK : 2393
P0CA01.1   : NAQQPNSLI-QLIQNITPLTVRAQLTTVFIRHGLPVPDPDQALQTDDEATQWFMTNIINQPITMIIPFTDLADDLRIFLETMERYVFNVPRWLGPSTGRVARVPVNMAPGNI-RYRTSYTENNVLTYIAEQNQEEGPWSIVKQVGVGIQK : 2394
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P0CA03.1   : NVGQANSMI-NLIQNITPQTAGAQLIALFNIRGLPAPPPRQVIQNDIEAMQWFMTMVINHPPILIAPFMLLVNNLKEFLNTLERYVYKTPRWLGPGTARIAQPPVGMAPGINMRHHTSYTENSVLTYITEQNREEGPWSIVKQVGVGIQK : 2394

                       *       2420         *       2440         *       2460         *       2480
YP_0099272 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
AZP54139.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QIE06881.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QGJ83454.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
AYW34063.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QLF78620.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QTP96400.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QBH90765.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QOY24398.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QSG73791.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QTE18752.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
VFV48026.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
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QOW03225.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QOW03039.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
VVW94185.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
CAD0059543 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QXP50051.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
CAD7112603 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
AXZ96054.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QED90535.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
VVW94190.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QEY87898.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QGV56805.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QPB67618.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QUQ60377.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QUQ60197.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
SPS73515.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QDL88123.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QIA61506.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QTZ19752.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
QIM07715.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
QIM07948.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
QIM08183.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
YP_0097024 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
YP_0097038 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
YP_0097023 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
YP_0097026 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
YP_0097035 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
QZK26792.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
YP_0097036 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
QID21266.1 : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
P0CA04.1   : PTLVHIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
P0CA02.1   : PTLVQIGKDRFDTRLIRNLIFITNVQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
YP_0097029 : PALIQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2476
AXB50010.1 : PALIQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2477
AXB49666.1 : PALIQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2477
CAD7112308 : PALIQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2474
QRY19118.1 : PALIQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2474
P0CA01.1   : PALIQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPNHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
YP_0097028 : PALIQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2474
P0CA03.1   : PTLVQIGKDRFDTRLIRNLIFITNIQRLLRLRLNLELSQFRNVLVSPDHIINPSITEYGFSITGPSETFSDKQYDSDIRIL : 2475
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Supplementary Table 1: List of ASFV isolates used as the source of the pp220 sequences (https://www.ncbi.nlm.nih.gov/) and aligned in the supplementary Figure 1.

Accession #	Isolate; Country	Genotype; Source of isolation	References
NC_044959.2 YP_009927216/ CAD2068454	ASFV Georgia 2007/1 Georgia	Genotype II Domestic Pig	(Chapman et al., 2011)
MH910496.1 AZP54139.1	Georgia 2008/2 Georgia	Genotype II; Domestic Pig	(Farlow et al., 2018)
MN393476.1 QIE06881.1	ASFV Wuhan 2019-1 China	Genotype II Domestic pig	(Xiong, Zhang, Yu, & Wei, 2019)
MN172368.1 QGJ83454	China/CAS19-01/2019 China	Genotype II Domestic pig	(Jia et al., 2020)
MK128995.1 AYW34063.1	China/2018/AnhuiXCGQ China	Genotype II Domestic pig	(Bao et al., 2019)
MT496893.1 QLF78620.1	GZ201801 China	Genotype II Domestic pig - serum	(Tran et al., 2022)
MW521382.1 QTP96400.1	HuB20 China	Genotype II Domestic pig	(Tran et al., 2022)
MK333181.1 QBH90765.1	DB/LN/2018 China	Genotype II Domestic Pig - Blood	(Wen et al., 2019)
MT180393.1 QOY24398.1	ASFV_NgheAn_2019 Vietnam	Genotype II Domestic pig	(Nguyen et al., 2021)
MW465755.1 QSG73791.1	VNUA-ASFV-05L1/HaNam/VN/2020 Vietnam	Genotype II Domestic pig -spleen	(Truong et al., 2021)
MW396979.1 QTE18752.1	ASFV/Timor-Leste/2019/1 Timor-Leste	Genotype II Domestic pig	(Mileto et al., 2021)
LR536725.1 VFV48026.1	ASFV Belgium 2018/1 Belgium	Genotype II Domestic Pig	(Jan H. Forth et al., 2019)
MT847623.2 QOW03225.1	Pol19_53050_C1959/19 Poland	Genotype II Domestic pig	(Mazur-Panasiuk, 2020)
MT847622.1 QOW03039.1	Pol17_31177_O81 Poland	Genotype II Domestic pig	(Mazur-Panasiuk, 2020)
LR722599.1 VVW94185.1	ASFV Moldova 2017/1 Moldova	Genotype II Domestic pig - spleen	(J. H. Forth et al., 2019)
LR813622.1 CAD0059543.1	Tanzania/Rukwa/2017/1 SW Tanzania	Genotype II Domestic pig	(Njau et al., 2021)
MW856068.1 QXP50051.1	MAL/19/Karonga Malawi	Genotype II Domestic pig	(Hakizimana et al., 2020)
LR899193.1 CAD7112603.1	ASFV Germany 2020/1 Germany	Genotype II Wild Boar	(Sauter-Louis, 2021)

MG939587.1 AXZ96054.1	Pol17_03029_C201 Poland	Genotype II Wild boar	(Mazur-Panasiuk, Woźniakowski, & Niemczuk, 2019)
MK543947.1 QED90535	Belgium/Etalle/wb/2018 Belgium	Genotype II Wild Boar	(Garigliany et al., 2019; Gilliaux et al., 2019)
LR722600.1 VVW94190.1	ASFV CzechRepublic 2017/1 Czech Republic	Genotype II Wild Boar	(Forth, 2020)
MK628478.1 QEY87898.1	ASFV/LT14/1490 Lithuania	Genotype II Wild Boar - Blood	(Gallardo et al., 2014)
MN715134.1 QGV56805.1	ASFV_HU_2018 Hungary	Genotype II Wild Boar - alveolar macrophages	(Olasz et al., 2019)
MT459800.1 QPB67618.1	ASFV/Kabardino-Balkaria 19/WB-964 Russia	Genotype II Wild Boar - spleen	(Malogolovkin, Yelsukova, Gallardo, Tsybanov, & Kolbasov, 2012; Mazloum et al., 2021)
MW306191.1 QUQ60377.1	ASFV/Primorsky 19/WB-6723 Russia	Genotype II Wild Boar - spleen	(Mazloum et al., 2021)
MW306190.1 QUQ60197.1	ASFV/Amur 19/WB-6905 Russia	Genotype II Wild Boar - spleen	(Mazloum et al., 2021)
LS478113.1 SPS73515.1	Estonia 2014 Estonia	Genotype II Wild Boar	(Nurmoja et al., 2020; Zani et al., 2018)
MK645909.1 QDL88123.1	ASFV-wbBS01 China	Genotype II Wild Boar	(Bao et al., 2019);(Njau et al., 2021)
MK940252.1 QIA61506.1	CN/2019/InnerMongolia-AES01- China	Genotype II Wild Boar	(Tran et al., 2022)
MW701371.1 QTZ19752.1	ASFV-G-deltaI177LdeltaLVR Plum Island	synthetic construct – deletion mutant of Georgia2007//1	(Borca, 2021)
MN270973.1 QIM07715.1	85/Ca/1985 Italy: Cagliari, Sardinia	Genotype I Domestic pig	(Torresi et al., 2020)
MN270974.1 QIM07948.1	141/Nu/1990 Italy: Nuoro, Sardinia	Genotype I Domestic pig	(Nix, Gallardo, Hutchings, Blanco, & Dixon, 2006; Torresi et al., 2020)
MN270975.1 QIM08183.1	142/Nu/1995 Italy: Nuoro, Sardinia	Genotype I Domestic pig	(Torresi et al., 2020)
NC_044942.1 YP_009702497.1	BA71V Spain: Badajoz	Genotype I Domestic pig - spleen	(Yanez, 1995)
NC_044958.1 YP_009703860.1	E75 Spain	Genotype I Domestic pig - spleen	(de Villiers et al., 2010)
NC_044941.1 YP_009702339.1	L60 Portugal	Genotype I Domestic pig	(Bastos et al., 2003)
NC_044943.1 YP_009702658.1	NHV Portugal	Genotype I Domestic pig	(Portugal et al., 2015)
NC_044956.1 YP_009703544.1/ CAN10191	Benin 97/1 Benin	Genotype I Domestic Pig	(Bastos et al., 2003)

MZ202520.1 QZK26792.1	K49 Zaire - Katanga	Genotype I Serogroup 2	(Bastos et al., 2003)
NC_044957.1 YP_009703699.1	OURT 88/3 Portugal	Genotype I Tick	(Boinas, Hutchings, Dixon, & Wilkinson, 2004)
MN913970.1 QID21266.1	Liv13/33 (OmLF2) Zambia, Livingstone	Genotype I Tick	(Chastagner et al., 2020)
gi|229891462 AY261366.1 P0CA04.1	Namibia/Wart80/1980 Namibia	Genotype IV Warthog	(Bastos et al., 2003; Zsak et al., 2005)
AY261361.1 P0CA02.1	Malawi LIL 20/1 Malawi	Genotype VIII; Haplotype 8a Ticks	(Haresnape, 1989)
NC_044946.1 YP_009702990.1	Ken06.Bus Kenya	Genotype IX Domestic Pig	(Bishop et al., 2015; Gallardo et al., 2009)
MH025920.1 AXB50010.1	R35 Uganda: Tororo district	Genotype IX Domestic pig Blood	(Masembe et al., 2018)
MH025918.1 AXB49666.1	R25 Uganda: Tororo district	Genotype IX Domestic pig Blood	(Masembe et al., 2018)
LR899131.1 CAD7112308.1	ASFV Ken.rie1	Genotype X Domestic Pig - Blood	(Forth et al., 2020)
MT956648.1 QRY19118.1	Uvira B53 Kivu – DR Congo	Genotype X Serogroup 7 Domestic pig - spleen	(Bisimwa et al., 2020)
AY261360.1 P0CA01.1gi|229891459	KEN-50/1950 Kenya	Genotype X Domestic Pig	Kutish G.F. and Rock D.L, 2003
NC_044945.1 YP_009702825.1 HM745253	Ken05/Tk1 Kenya	Genotype X Ticks	(Bishop et al., 2015; Gallardo et al., 2009)
gi|229891461 AY261363.1 P0CA03.1	Pretoriuskop Pr4/1996 South Africa	Genotype XX Haplotype 20a Ticks	(Kleiboeker, Burrage, Scoles, Fish, & Rock, 1998)

Supplementary Table 2. Defined IFN-γ-inducing pp220 peptides are predicted to bind to multiple *SLA-I* alleles

Peptide	Sequence	Aff(nM)	Bind Level	*SLA-I* Allele
p34$^{161-169}$	LTHGLRAEY	1486.83	SB	SLA-1*02:01
p34$^{161-169}$	LTHGLRAEY	1486.83	SB	SLA-1*02:02
p34$^{161-169}$	LTHGLRAEY	270.87	SB	SLA-1*07:01
p34$^{161-169}$	LTHGLRAEY	270.87	SB	SLA-1*07:02
p34$^{161-169}$	LTHGLRAEY	1495.02	SB	SLA-1*08:01
p34$^{161-169}$	LTHGLRAEY	538.61	SB	SLA-1*LWH
p34$^{161-169}$	LTHGLRAEY	2054.49	SB	SLA-2*01:01
p34$^{161-169}$	LTHGLRAEY	1397.84	SB	SLA-2*01:02
p34$^{161-169}$	LTHGLRAEY	2046.26	SB	SLA-2*03:02
p34$^{161-169}$	LTHGLRAEY	306.17	SB	SLA-2*04:01
p34$^{161-169}$	LTHGLRAEY	1828.05	SB	SLA-2*04:02
p34$^{161-169}$	LTHGLRAEY	1903.42	SB	SLA-2*10:01
p34$^{161-169}$	LTHGLRAEY	1005.50	SB	SLA-2*10:02
p34$^{161-169}$	LTHGLRAEY	451.91	SB	SLA-2*HB:01
p34$^{161-169}$	LTHGLRAEY	4407.40	SB	SLA-2*LWH:AA
p34$^{161-169}$	LTHGLRAEY	3744.41	SB	SLA-2*TPK:AA
p37$^{859-867}$	KSMAAKIFI	1177.68	SB	SLA-2*05:01
p37$^{859-867}$	KSMAAKIFI	7913.59	SB	SLA-2*12:01
p37$^{859-867}$	KSMAAKIFI	1586.28	SB	SLA-2*YC:AA
p37$^{859-867}$	KSMAAKIFI	1201.01	SB	SLA-3*01:01
p37$^{859-867}$	KSMAAKIFI	2335.79	SB	SLA-3*06:02
p150$^{1363-1371}$	HIDKNIIQY	9776.79	SB	SLA-1*01:01
p150$^{1363-1371}$	HIDKNIIQY	520.01	SB	SLA-1*02:01
p150$^{1363-1371}$	HIDKNIIQY	520.01	SB	SLA-1*02:02
p150$^{1363-1371}$	HIDKNIIQY	13.25	SB	SLA-1*04:01
p150$^{1363-1371}$	HIDKNIIQY	926.75	SB	SLA-1*06:01
p150$^{1363-1371}$	HIDKNIIQY	420.20	SB	SLA-1*07:01
p150$^{1363-1371}$	HIDKNIIQY	420.20	SB	SLA-1*07:02
p150$^{1363-1371}$	HIDKNIIQY	554.29	SB	SLA-1*08:01
p150$^{1363-1371}$	HIDKNIIQY	3350.95	SB	SLA-1*12:01
p150$^{1363-1371}$	HIDKNIIQY	303.44	SB	SLA-1*13:01
p150$^{1363-1371}$	HIDKNIIQY	2759.77	SB	SLA-1*HB:01
p150$^{1363-1371}$	HIDKNIIQY	2038.59	SB	SLA-1*HB:02
p150$^{1363-1371}$	HIDKNIIQY	2038.59	SB	SLA-1*HB:03
p150$^{1363-1371}$	HIDKNIIQY	2759.77	SB	SLA-1*HB:04
p150$^{1363-1371}$	HIDKNIIQY	1181.03	SB	SLA-1*LWH

Peptide	Sequence	Aff(nM)	Bind Level	*SLA-I* Allele
p150$^{1363-1371}$	HIDKNIIQY	3227.75	SB	SLA-1*YC
p150$^{1363-1371}$	HIDKNIIQY	13.25	SB	SLA-1*YDL:01
p150$^{1363-1371}$	HIDKNIIQY	7612.26	SB	SLA-2*01:01
p150$^{1363-1371}$	HIDKNIIQY	3376.90	SB	SLA-2*01*02
p150$^{1363-1371}$	HIDKNIIQY	1348.91	SB	SLA-2*03:02
p150$^{1363-1371}$	HIDKNIIQY	6358.65	SB	SLA-2*04:01
p150$^{1363-1371}$	HIDKNIIQY	5207.98	SB	SLA-2*10:01
p150$^{1363-1371}$	HIDKNIIQY	220.50	SB	SLA-2*10:02
p150$^{1363-1371}$	HIDKNIIQY	213.00	SB	SLA-2*HB:01
p150$^{1363-1371}$	HIDKNIIQY	8411.18	SB	SLA-2*LWH:AA
p150$^{1363-1371}$	HIDKNIIQY	14014.36	SB	SLA-2*TPK:AA
p150$^{1363-1371}$	HIDKNIIQY	13.25	SB	SLA-2*YDL:AA
p150$^{1363-1371}$	HIDKNIIQY	13.25	SB	SLA-2*YDL:02
p150$^{1363-1371}$	HIDKNIIQY	20574.55	SB	SLA-3*03:02
p150$^{1363-1371}$	HIDKNIIQY	2759.77	SB	SLA-3*LWH
p150$^{1463-1471}$	RVFSRLVFY	168.64	SB	SLA-1*02:01
p150$^{1463-1471}$	RVFSRLVFY	168.64	SB	SLA-1*02:02
p150$^{1463-1471}$	RVFSRLVFY	157.58	SB	SLA-1*04:01
p150$^{1463-1471}$	RVFSRLVFY	1041.78	SB	SLA-1*05:01
p150$^{1463-1471}$	RVFSRLVFY	1255.39	SB	SLA-1*06:01
p150$^{1463-1471}$	RVFSRLVFY	84.92	SB	SLA-1*07:01
p150$^{1463-1471}$	RVFSRLVFY	84.92	SB	SLA-1*07:02
p150$^{1463-1471}$	RVFSRLVFY	402.78	SB	SLA-1*08:01
p150$^{1463-1471}$	RVFSRLVFY	319.31	SB	SLA-1*12:01
p150$^{1463-1471}$	RVFSRLVFY	1212.39	SB	SLA-1*13:01
p150$^{1463-1471}$	RVFSRLVFY	1181.63	SB	SLA-1*HB:01
p150$^{1463-1471}$	RVFSRLVFY	808.38	SB	SLA-1*HB:02
p150$^{1463-1471}$	RVFSRLVFY	808.38	SB	SLA-1*HB:03
p150$^{1463-1471}$	RVFSRLVFY	1181.63	SB	SLA-1*HB:04
p150$^{1463-1471}$	RVFSRLVFY	248.15	SB	SLA-1*LWH
p150$^{1463-1471}$	RVFSRLVFY	813.92	SB	SLA-1*YC
p150$^{1463-1471}$	RVFSRLVFY	157.58	SB	SLA-1*YDL:01
p150$^{1463-1471}$	RVFSRLVFY	548.67	SB	SLA-2*01:01
p150$^{1463-1471}$	RVFSRLVFY	130.67	SB	SLA-2*01:02
p150$^{1463-1471}$	RVFSRLVFY	463.66	SB	SLA-2*03:02
p150$^{1463-1471}$	RVFSRLVFY	314.89	SB	SLA-2*04:01
p150$^{1463-1471}$	RVFSRLVFY	1264.22	SB	SLA-2*04:02
p150$^{1463-1471}$	RVFSRLVFY	730.71	SB	SLA-2*10:01
p150$^{1463-1471}$	RVFSRLVFY	108.09	SB	SLA-2*10:02
p150$^{1463-1471}$	RVFSRLVFY	61.50	SB	SLA-2*HB:01

Peptide	Sequence	Aff(nM)	Bind Level	*SLA-I* Allele
$p150^{1463-1471}$	RVFSRLVFY	1138.60	SB	SLA-2*LWH:AA
$p150^{1463-1471}$	RVFSRLVFY	5781.27	SB	SLA-2*TPK:AA
$p150^{1463-1471}$	RVFSRLVFY	157.58	SB	SLA-2*YDL:AA
$p150^{1463-1471}$	RVFSRLVFY	814.61	SB	SLA-2*YDY:AA
$p150^{1463-1471}$	RVFSRLVFY	157.58	SB	SLA-2*YDL:02
$p150^{1463-1471}$	RVFSRLVFY	2479.14	SB	SLA-3*03:01
$p150^{1463-1471}$	RVFSRLVFY	3692.27	SB	SLA-3*03:02
$p150^{1463-1471}$	RVFSRLVFY	2479.14	SB	SLA-3*03:03
$p150^{1463-1471}$	RVFSRLVFY	3223.21	SB	SLA-*:03:04
$p150^{1463-1471}$	RVFSRLVFY	1229.98	SB	SLA-3*04:01
$p150^{1463-1471}$	RVFSRLVFY	814.61	SB	SLA-3*06:01
$p150^{1463-1471}$	RVFSRLVFY	4138.02	SB	SLA-3*06:02
$p150^{1463-1471}$	RVFSRLVFY	1871.42	SB	SLA-3*07:01
$p150^{1463-1471}$	RVFSRLVFY	814.61	SB	SLA-3*CDY
$p150^{1463-1471}$	RVFSRLVFY	1181.63	SB	SLA-3*LWH
$p150^{1463-1471}$	RVFSRLVFY	1301.51	SB	SLA-3*YC
$p150^{1463-1471}$	RVFSRLVFY	814.61	SB	SLA-3*YDY:01
$p150^{1463-1471}$	RVFSRLVFY	814.61	SB	SLA-3*YDY:02
$p150^{1463-1471}$	RVFSRLVFY	1871.42	SB	SLA-3*YTH

The mapped IFN-γ-inducing nanomer peptides from ASFV pp220 (Georgia 2007/1) were predicted for *SLA-I* binding using NetMHCpan version 4.1 (https://services.healthtech.dtu.dk/service.php?NetMHCpan-4.1). Input type used was "Peptide" with the threshold for strong binders set at less than 0.5% Rank and for weak binders less than 2% Rank, but greater than 0.5% as are the default binding thresholds proven for MHC class I. Binding affinity and sorting were applied to filter for strong (SB) allele binders shown in the above table.