

CLUSTAL FORMAT: MUSCLE (3.8) multiple sequence alignment

QIM47476.1 MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFS
QOJ75919.1 MFVFLVLLPLISSQCVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFS
QMX86941.1 MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFS
QMX86953.1 MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFS
QIM47467.2 MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFS
*****:*****

QIM47476.1 NVTWFHAIHVSGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLIV
QOJ75919.1 NVTWFHAIHVSGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLIV
QMX86941.1 NVTWFHAIHVSGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLIV
QMX86953.1 NVTWFHAIHVSGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLIV
QIM47467.2 NVTWFHAIHVSGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLIV

QIM47476.1 NNATNVVIKVFCEQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFLMDLE
QOJ75919.1 NNATNVVIKVFCEQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFFMDPE
QMX86941.1 NNATNVVIKVFCEQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFLMDLE
QMX86953.1 NNATNVVIKVFCEQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFLMDLE
QIM47467.2 NNATNVVIKVFCEQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFLMDLE
*****:***

QIM47476.1 GKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPOGFSALEPLVDLPIGINITRFQT
QOJ75919.1 GKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPOGFSALEPLVDLPIGINITRFQT
QMX86941.1 GKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPOGFSALEPLVDLPIGINITRFQT
QMX86953.1 GKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPOGFSALEPLVDLPIGINITRFQT
QIM47467.2 GKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPOGFSALEPLVDLPIGINITRFQT

QIM47476.1 LLALHRSYLT PGDSXX
QOJ75919.1 LLALHRSYLT PGDSSSGWTAGTAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETK
QMX86941.1 LLALHRSYLT PGDSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETK
QMX86953.1 LLALHRSYLT PGDSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETK
QIM47467.2 LLALHRSYLT PGDSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETK

QIM47476.1 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXRFPNITNLCPFGEVFNATRFASVYAWNKRKRI SN
QOJ75919.1 CTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNKRKRI SN
QMX86941.1 CTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNKRKRI SN
QMX86953.1 CTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNKRKRI SN
QIM47467.2 CTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNKRKRI SN

QIM47476.1 CVADYSVLYNSASFSTFKCYGVSPTKLNLDLCTNVYADSFVIRGDEVQRQIAPGQTGKIAD
QOJ75919.1 CVADYSVLYNSASFSTFKCYGVSPTKLNLDLCTNVYADSFVIRGDEVQRQIAPGQTGKIAD
QMX86941.1 CVADYSVLYNSASFSTFKCYGVSPTKLNLDLCTNVYADSFVIRGDEVQRQIAPGQTGKIAD
QMX86953.1 CVADYSVLYNSASFSTFKCYGVSPTKLNLDLCTNVYADSFVIRGDEVQRQIAPGQTGKIAD
QIM47467.2 CVADYSVLYNSASFSTFKCYGVSPTKLNLDLCTNVYADSFVIRGDEVQRQIAPGQTGKIAD

QIM47476.1 YNYKLPDDFTGCVIAWNSNNLDSKVGNYNYLYRLFRKSNLKPFFERDISTEIQAGSTPC
QOJ75919.1 YNYKLPDDFTGCVIAWNSNNLDSKVGNYNYLYRLFRKSNLKPFFERDISTEIQAGSTPC
QMX86941.1 YNYKLPDDFTGCVIAWNSNNLDSKVGNYNYLYRLFRKSNLKPFFERDISTEIQAGSTPC
QMX86953.1 YNYKLPDDFTGCVIAWNSNNLDSKVGNYNYLYRLFRKSNLKPFFERDISTEIQAGSTPC
QIM47467.2 YNYKLPDDFTGCVIAWNSNNLDSKVGNYNYLYRLFRKSNLKPFFERDISTEIQAGSTPC

QIM47476.1 NGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVVL SFELLHAPATVCGPKKSTNLVKNKCVN
QOJ75919.1 NGVEGFNCYFPLQSYGFYTTNGVGYQPYRVVVL SFELLHAPATVCGPKKSTNLVKNKCVN
QMX86941.1 NGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVVL SFELLHAPATVCGPKKSTNLVKNKCVN
QMX86953.1 NGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVVL SFELLHAPATVCGPKKSTNLVKNKCVN
QIM47467.2 NGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVVL SFELLHAPATVCGPKKSTNLVKNKCVN

QIM47476.1 FNFNGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQ TLEILDITPCSFGGVSVITP
QOJ75919.1 FNFNGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQ TLEILDITPCSFGGVSVITP
QMX86941.1 FNFNGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQ TLEILDITPCSFGGVSVITP
QMX86953.1 FNFNGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQ TLEILDITPCSFGGVSVITP
QIM47467.2 FNFNGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQ TLEILDITPCSFGGVSVITP

QIM47476.1 GTNTSNQVAVLYQGVNCTEVPVAIHADQLTPTWRVYSTG SNVFQTRAGCLIGAEHVNNSY
QOJ75919.1 GTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTG SNVFQTRAGCLIGAEHVNNSY
QMX86941.1 GTNTSNQVAVLYQGVNCTEVPVAIHADQLTPTWRVYSTG SNVFQTRAGCLIGAEHVNNSY
QMX86953.1 GTNTSNQVAVLYQGVNCTEVPVAIHADQLTPTWRVYSTG SNVFQTRAGCLIGAEHVNNSY
QIM47467.2 GTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTG SNVFQTRAGCLIGAEHVNNSY

QIM47476.1 ECDIPIGAGICASYQTQTNSPRRARSVASQSI IAYTMSLGAENSVAYSNN SIAIPTNFTI
QOJ75919.1 ECDIPIGAGICASYQTQTNSPRRARSVASQSI IAYTMSLGAENSVAYSNN SIAIPNFTI
QMX86941.1 ECDIPIGAGICASYQTQTNSPRRARSVASQSI IAYTMSLGAENSVAYSNN SIAIPTNFTI
QMX86953.1 ECDIPIGAGICASYQTQTNSPRRARSVASQSI IAYTMSLGAENSVAYSNN SIAIPTNFTI
QIM47467.2 ECDIPIGAGICASYQTQTNSPRRARSVASQSI IAYTMSLGAENSVAYSNN SIAIPTNFTI

QIM47476.1 SVTTEILPVSMTKTSVDCTMYICGDSTEC SNLLLQYGSFCTQLNRALTGIAVEQDKNTQE
QOJ75919.1 SVTTEFLPVSMTKTSVDCTMYICGDSTEC SNLLLQYGSFCTQLNRALTGIAVEQDKNTQE
QMX86941.1 SVTTEILPVSMTKTSVDCTMYICGDSTEC SNLLLQYGSFCTQLNRALTGIAVEQDKNTQE
QMX86953.1 SVTTEILPVSMTKTSVDCTMYICGDSTEC SNLLLQYGSFCTQLNRALTGIAVEQDKNTQE
QIM47467.2 SVTTEILPVSMTKTSVDCTMYICGDSTEC SNLLLQYGSFCTQLNRALTGIAVEQDKNTQE

QIM47476.1 VFAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSF IEDLLFNKVT LADAGFIKQYGDC
QOJ75919.1 VFAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSF IEDLLFNKVT LADAGFIKQYGDC
QMX86941.1 VFAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSF IEDLLFNKVT LADAGFIKQYGDC
QMX86953.1 VFAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSF IEDLLFNKVT LADAGFIKQYGDC
QIM47467.2 VFAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSF IEDLLFNKVT LADAGFIKQYGDC

QIM47476.1 LGDIAARDLICAQKFNGLTVLPPLLTDEMI AQYTSALLAGTITSGWTFGAGAALQIPFAM
QOJ75919.1 LGDIAARDLICAQKFNGLTVLPPLLTDEMI AQYTSALLAGTITSGWTFGAGAALQIPFAM
QMX86941.1 LGDIAARDLICAQKFNGLTVLPPLLTDEMI AQYTSALLAGTITSGWTFGAGAALQIPFAM
QMX86953.1 LGDIAARDLICAQKFNGLTVLPPLLTDEMI AQYTSALLAGTITSGWTFGAGAALQIPFAM
QIM47467.2 LGDIAARDLICAQKFNGLTVLPPLLTDEMI AQYTSALLAGTITSGWTFGAGAALQIPFAM

QIM47476.1 QMAYRFNGIGVTQNVLYENQKLIANQFN SAIGKIQDLSSTASALGK LQDVVNQNAQALN
QOJ75919.1 QMAYRFNGIGVTQNVLYENQKLIANQFN SAIGKIQDLSSTASALGK LQDVVNQNAQALN
QMX86941.1 QMAYRFNGIGVTQNVLYENQKLIANQFN SAIGKIQDLSSTASALGK LQDVVNQNAQALN
QMX86953.1 QMAYRFNGIGVTQNVLYENQKLIANQFN SAIGKIQDLSSTASALGK LQDVVNQNAQALN
QIM47467.2 QMAYRFNGIGVTQNVLYENQKLIANQFN SAIGKIQDLSSTASALGK LQDVVNQNAQALN

QIM47476.1 TLVKQLSSNFGAISSVLNDILSRDKVEAEVQIDRLITGRLQSLQTYVTTQQLIRAAEIRA
QOJ75919.1 TLVKQLSSNFGAISSVLNDILSRDKVEAEVQIDRLITGRLQSLQTYVTTQQLIRAAEIRA
QMX86941.1 TLVKQLSSNFGAISSVLNDILSRDKVEAEVQIDRLITGRLQSLQTYVTTQQLIRAAEIRA
QMX86953.1 TLVKQLSSNFGAISSVLNDILSRDKVEAEVQIDRLITGRLQSLQTYVTTQQLIRAAEIRA
QIM47467.2 TLVKQLSSNFGAISSVLNDILSRDKVEAEVQIDRLITGRLQSLQTYVTTQQLIRAAEIRA

QIM47476.1 SANLAATKMSECVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTVVPAQEKNFTTAPA
QOJ75919.1 SANLAATKMSECVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTVVPAQEKNFTTAPA
QMX86941.1 SANLAATKMSECVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTVVPAQEKNFTTAPA
QMX86953.1 SANLAATKMSECVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTVVPAQEKNFTTAPA
QIM47467.2 SANLAATKMSECVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTVVPAQEKNFTTAPA

QIM47476.1 ICHDGKAHFPREGVFSNGTHWFVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNTVYDP
QOJ75919.1 ICHDGKAHFPREGVFSNGTHWFVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNTVYDP
QMX86941.1 ICHDGKAHFPREGVFSNGTHWFVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNTVYDP
QMX86953.1 ICHDGKAHFPREGVFSNGTHWFVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNTVYDP
QIM47467.2 ICHDGKAHFPREGVFSNGTHWFVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNTVYDP

QIM47476.1 LQPELDSFKEELDKYFKNHTSPDVLDGDISGINASVVNIQKEIDRLNEVAKNLNESLIDL
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QMX86941.1 LQPELDSFKEELDKYFKNHTSPDVLDGDISGINASVVNIQKEIDRLNEVAKNLNESLIDL
QMX86953.1 LQPELDSFKEELDKYFKNHTSPDVLDGDISGINASVVNIQKEIDRLNEVAKNLNESLIDL
QIM47467.2 LQPELDSFKEELDKYFKNHTSPDVLDGDISGINASVVNIQKEIDRLNEVAKNLNESLIDL

QIM47476.1 QELGKYEQYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDEDD
QOJ75919.1 QELGKYEQYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDEDD
QMX86941.1 QELGKYEQYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDEDD
QMX86953.1 QELGKYEQYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDEDD
QIM47467.2 QELGKYEQYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDEDD

QIM47476.1 SEPVLKGVKLHYT
QOJ75919.1 SEPVLKGVKLHYT
QMX86941.1 SEPVLKGVKLHYT
QMX86953.1 SEPVLKGVKLHYT
QIM47467.2 SEPVLKGVKLHYT
