

EMBOSS Needle online web-tool ([https://www.ebi.ac.uk/Tools/psa/emboss\\_needle/](https://www.ebi.ac.uk/Tools/psa/emboss_needle/)) was used for the alignment process. The output is provided below.

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#####
# Program: needle
# Rundate: Fri 1 Oct 2021 20:52:45
# Commandline: needle
# -auto
# -stdout
# -asequence emboss_needle-I20211001-205244-0247-18490621-p2m.asequence
# -bsequence emboss_needle-I20211001-205244-0247-18490621-p2m.bsequence
# -datafile EBLOSUM62
# -gapopen 10.0
# -gapextend 0.5
# -endopen 10.0
# -endextend 0.5
# -aformat3 pair
# -sprotein1
# -sprotein2
# Align_format: pair
# Report_file: stdout
#####

#=====
#
# Aligned_sequences: 2
# 1: LIMK1_HUMAN
# 2: LIMK2_HUMAN
# Matrix: EBLOSUM62
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 669
# Identity:      347/669 (51.9%)
# Similarity:    447/669 (66.8%)
# Gaps:          53/669 ( 7.9%)
# Score: 1754.5
#
#
#=====

LIMK1_HUMAN      1 MRLTLLCCTWREERMGEEGSELPVCASCGQRIYDGQ-YLQALNADWHADC      49
                                .....|:~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|
LIMK2_HUMAN      1 -----MSALAGEDVWRCPGCGDHIAPSQIYWRTVNETWHGSC      37

LIMK1_HUMAN     50 FRCCDCSASLSHQYYEKDGLFCKKDYWARYGESCHGCSEQITKGLVMVA      99
    ||~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|
LIMK2_HUMAN     38 FRCSECQDSLTNWYYEKDGKLYCPKDYWGKFGEFCHGCSLLMT-GPFMVA      86

LIMK1_HUMAN    100 GELKYHPECFICLTCGTFIGDGDYTLVEHSKLYCGHCYQTVVTPVIEQ      149
    ||~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|
LIMK2_HUMAN     87 GEFKYHPECFACMSCKVIIEDGDAYALVQHATLYCGKCHNEVV LAPMFER      136

LIMK1_HUMAN    150 ILPDSPGSHLPHTVTLVSI PASSHGKRGLSVSI DPHGPPGCGTEHSHTV      199
    :~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|
LIMK2_HUMAN    137 LSTESVQEQLPYSVTLISMPATTEGRRGFSVSVE-----SAC-SNYATTV      180

LIMK1_HUMAN    200 RVQGVDPGCMSPDVKNSIHVGDRILEINGTPIRNVPLDEIDLLIQETSRL      249
    :~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|~::~|
LIMK2_HUMAN    181 QVKEVNRMHISPNRNRAIHPGDRILEINGTPVRTL RVEEVEDAISQTSQT      230

LIMK1_HUMAN    250 LQLTLEHDPHD-----TLGHGLGPETSPLSPP----AYTPSGEAGSSAR      289
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