

```
#####
# Program: needle
# Rundate: Wed 11 Jan 2023 08:51:44
# Commandline: needle
#   -auto
#   -stdout
#   -asequence emboss_needle-I20230111-084953-0614-78224635-p1m.asequence
#   -bsequence emboss_needle-I20230111-084953-0614-78224635-p1m.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: SARS-CoV-2
# 2: SARS-CoV
# Matrix: EBLOSUM62
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 225
# Identity:      165/225 (73.3%)
# Similarity:    183/225 (81.3%)
# Gaps:          5/225 ( 2.2%)
# Score: 911.0
#
#
#=====

SARS-CoV-2      1  --NLCPFGEVFNATRFASVYAWNKRISNCVADYSVLVNSASFSTFKCYG      48
                ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
SARS-CoV        1  ITNLCPFGEVFNATKFPVYAWERKKISNCVADYSVLVNSTFFSTFKCYG      50

SARS-CoV-2     49  VSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTG      98
                ||. ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
SARS-CoV       51  VSATKLNDLCFSNVYADSFVVKGDDVRQIAPGQTGVIADYNYKLPDDFMG     100

SARS-CoV-2     99  CVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIQAGSTPCN     148
                ||: ||| :. |: |... |||||. ||..|... |: ||||| |...:..... ||.
SARS-CoV      101  CVLAWNTRNIDATSTGNYNYKYRYLRHGKLRPFERDISNVPFSPDGKPCT     150

SARS-CoV-2    149  GVEGFNCYFPLQSYGFQPTNGVGYPYRVVLSFELLHAPATVCGPKKST     198
                .... ||| :| |.. |||.. |: | ||||| ||||| ||| : ||||| |||. ||
SARS-CoV     151  -PPALNCYWPLNDYGFTTTGIGYQPYRVVLSFELLNAPATVCGPKLST     199

SARS-CoV-2    199  NLVKNKCVNFNFNGLTGTGVLTESN      223
                :|: ||| : ||||| ||||| |||.
SARS-CoV     200  DLIKNQCVNFNFNGLTGTGVLTP--      222

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