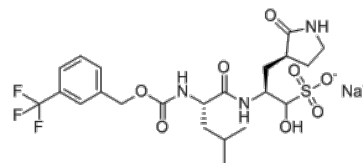


Product Name : Coronastat
Cat. No. : PC-73341
CAS No. :
Molecular Formula : C₂₂H₂₉F₃N₃NaO₈S
Molecular Weight : 575.532
Target : SARS-CoV-2 Inhibitors
Solubility : 10 mM in DMSO



Biological Activity

Coranastat (NK01-63) is a GC376 analog with improved potency, and highly potent, selective **SARS-CoV-2 3CL protease** inhibitor with IC₅₀ of 16 nM, exhibits antiviral potency with EC₅₀ of 6 nM in Huh-7ACE2 cellular assays.

NK01-63 exhibited outstanding improvements over GC376 for inhibiting SARS-CoV-2 in vitro and in cells, demonstrated high potency in human Caco-2 cells against SARS-CoV-2 infection with EC₉₀ of 81 nM.

NK01-63 is highly selective for 3CL inhibition, displaying IC₅₀ values of >100 μM against many of the other human proteases and possessing only modest levels of inhibition of caspase 8 (IC₅₀=18 μM), cathepsin B (IC₅₀=1.1 μM), cathepsin K (IC₅₀=0.04 μM), and cathepsin S (IC₅₀=0.03 μM), but with high potency against cathepsin L (IC₅₀=0.006 μM).

NK01-63 exhibits specific pan-coronavirus activities, can effectively block the viral replication of human coronavirus alpha OC43 and human coronavirus beta 229E, with EC₅₀ values < 100 nM in Huh-7 human cells, also blocks replication of MERS-CoV (EC₅₀< 1 μM) and SARS-CoV (EC₅₀< 3 μM) in Vero 76 cells.

References

Hengrui Liu, et al. *Nat Commun.* 2022 Apr 7;13(1):1891.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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