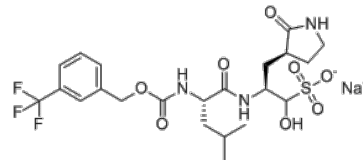


**Product Name** : Coronastat  
**Cat. No.** : PC-73341  
**CAS No.** : 2922281-15-8  
**Molecular Formula** : C<sub>22</sub>H<sub>29</sub>F<sub>3</sub>N<sub>3</sub>NaO<sub>8</sub>S  
**Molecular Weight** : 575.532  
**Target** : SARS-CoV-2 Inhibitors  
**Solubility** : 10 mM in DMSO



## Biological Activity

Coranastat (NK01-63) is a GC376 analog with improved potency, and highly potent, selective **SARS-CoV-2 3CL protease** inhibitor with IC<sub>50</sub> of 16 nM, exhibits antiviral potency with EC<sub>50</sub> 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 EC<sub>90</sub> of 81 nM.

NK01-63 is highly selective for 3CL inhibition, displaying IC<sub>50</sub> values of >100 μM against many of the other human proteases and possessing only modest levels of inhibition of caspase 8 (IC<sub>50</sub>=18 μM), cathepsin B (IC<sub>50</sub>=1.1 μM), cathepsin K (IC<sub>50</sub>=0.04 μM), and cathepsin S (IC<sub>50</sub>=0.03 μM), but with high potency against cathepsin L (IC<sub>50</sub>=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 EC<sub>50</sub> values < 100 nM in Huh-7 human cells, also blocks replication of MERS-CoV (EC<sub>50</sub>< 1 μM) and SARS-CoV (EC<sub>50</sub>< 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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