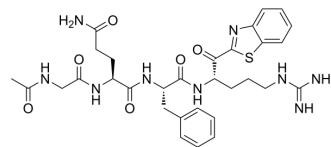


MM3122

Cat. No.:	HY-148072		
CAS No.:	2574390-27-3		
Molecular Formula:	C ₃₁ H ₃₉ N ₉ O ₆ S		
Molecular Weight:	665.76		
Target:	SARS-CoV		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 90 mg/mL (135.18 mM; Need ultrasonic and warming)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.5020 mL	7.5102 mL	15.0204 mL
	5 mM	0.3004 mL	1.5020 mL	3.0041 mL
	10 mM	0.1502 mL	0.7510 mL	1.5020 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

MM3122 is a selective type II transmembrane serine protease (TMPRSS2) inhibitor with an IC₅₀ value of 0.34 nM. MM3122 effectively blocks TMPRSS2, thereby inhibiting the entry of SARS-CoV-2 and MERS-CoV into human cells^[1].

In Vitro

MM3122 (0-1 μM) has inhibitory activity against HGFA, matriptase, hepsin and thrombin with the IC₅₀ values of 32, 0.31, 0.19 and more than 20 nM, respectively^[1].

MM3122 (0.1-100 μM) inhibits SARS-CoV-2 calu-3, VSV-SARS CoV-2 chimera calu-3 and MERS VSV pseudotype calu-3 with the EC₅₀ values of 74, 0.43 and 0.87 nM, respectively^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

MM3122 (i.p., 0-100 mg/kg, daily, 7 days) has no adverse effects, no weight loss or changes in harvested organs (liver, spleen and kidney) compared to controls in NOD-scid IL2R^{gnull} (NSG) mice^[1].

MM3122 (i.p., 16.7 mg/kg, once) has a half-life of 8.6 hours in plasma and 7.5 hours in lung of NSG mice^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Matthew Mahoney, et al. A novel class of TMPRSS2 inhibitors potently block SARS-CoV-2 and MERS-CoV viral entry and protect human epithelial lung cells. Proc Natl Acad Sci U S A. 2021 Oct 26;118(43):e2108728118.

Caution: Product has not been fully validated for medical applications. For research use only.

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