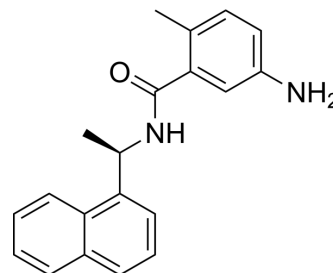


GRL0617

Cat. No.:	HY-117043		
CAS No.:	1093070-16-6		
Molecular Formula:	C ₂₀ H ₂₀ N ₂ O		
Molecular Weight:	304.39		
Target:	Deubiquitinase; SARS-CoV		
Pathway:	Cell Cycle/DNA Damage; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (410.66 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	3.2853 mL	16.4263 mL	32.8526 mL
5 mM	0.6571 mL	3.2853 mL	6.5705 mL
10 mM	0.3285 mL	1.6426 mL	3.2853 mL

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

In Vivo

- Add each solvent one by one: 5% DMSO >> 40% PEG300 >> 5% Tween-80 >> 50% saline
Solubility: 2.5 mg/mL (8.21 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (6.83 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (6.83 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (6.83 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GRL0617 is a selective and competitive noncovalent inhibitor of severe acute respiratory syndrome (SARS-CoV) papain-like protease (PLpro), with an IC₅₀ of 0.6 μM and a K_i value of 0.49 μM. GRL0617 also inhibits SARS-CoV with an EC₅₀ of 14.5 μM. GRL0617 can be used for the research of severe acute respiratory syndrome^[1].

IC₅₀ & Target

IC₅₀: 0.6 μM (SARS-CoV PLpro)^[1]

In Vitro

GRL0617 (0-50 μ M; 48 h) exhibits significantly antiviral activity in SARS-CoV infected Vero E6 cells^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Cell Viability Assay^[1]

Cell Line:	Vero E6 cells
Concentration:	0, 10, 20, 30, 40 and 50 μ M
Incubation Time:	48 hours
Result:	Showed significant antiviral activity in SARS-CoV infected Vero E6 cells with an EC ₅₀ value of 14.5 μ M.

CUSTOMER VALIDATION

- Nat Commun. 2021 Jan 20;12(1):488.
- Nucleic Acids Res. 2021 Jan 8;49(D1):D11113-D1121.
- Acta Pharm Sin B. 2021 Jan;11(1):237-245.
- Cell Chem Biol. 2022 Jun 9;S2451-9456(22)00201-X.
- Cell Chem Biol. 2021 Apr 27;S2451-9456(21)00213-0.

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REFERENCES

[1]. Ratia K, et al. A noncovalent class of papain-like protease/deubiquitinase inhibitors blocks SARS virus replication. Proc Natl Acad Sci U S A. 2008 Oct 21;105(42):16119-24.

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

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