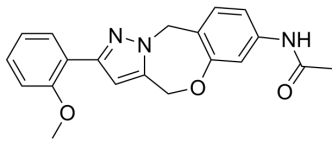
LDC7559

Cat. No.:	HY-111674
CAS No.:	2407782-01-6
Molecular Formula:	$C_{20}H_{19}N_3O_3$
Molecular Weight:	349.38
Target:	Pyroptosis
Pathway:	Apoptosis; Immunology/Inflammation
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 : 100 mg/mL (286.22 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.8622 mL	14.3111 mL	28.6221 mL
5 mM	0.5724 mL	2.8622 mL	5.7244 mL
10 mM	0.2862 mL	1.4311 mL	2.8622 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (5.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.95 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LDC7559 is a gasdermin D (GSDMD) inhibitor via blocking neutrophil extracellular trap (NET) in the late stages [1].

IC_{50} & Target

Gasdermin D[1].

In Vitro

LDC7559 (1 and 5 μM) inhibits IL-1β release upon inflammasome activation, and significantly blocks the lethal effect of both human and murine GSDMD NT domains transfected into HEK293T cells[3].
LDC7559 functions directly through blocking the activity of the GSDMD NT domain, rather than interfering with the

activation and cleavage process[3].

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

CUSTOMER VALIDATION

- Elife. 2021 Jul 21;10:e68755.
- Elife. 2021 Jul 21;10:e68755.
- Eur J Immunol. 2022 Oct 17.
- FASEB J. 2020 Oct;34(10):14024-14041.
- Research Square Print. 2023 Mar 14.

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REFERENCES

[1]. Spel L, et al. Gasdermin D opens the way for NETs. Nat Rev Rheumatol. 2018 Dec;14(12):690-692.

[2]. Sollberger G, et al. Gasdermin D plays a vital role in the generation of neutrophil extracellular traps. Sci Immunol. 2018 Aug 24;3(26). pii: eaar6689.

[3]. Ankit Pandeya, et al. Gasdermin D (GSDMD) as a New Target for the Treatment of Infection. Medchemcomm. 2019 Apr 4;10(5):660-667.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA