DUB-IN-1

Cat. No.: HY-50736

CAS No.: 924296-18-4

Molecular Formula: $C_{20}H_{11}N_5O$

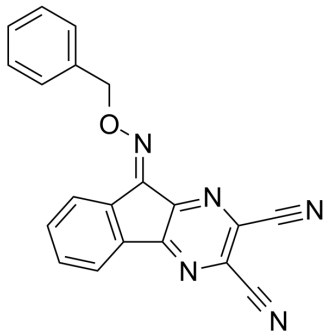
Molecular Weight: 337.33

Target: Deubiquitinase

Pathway: Cell Cycle/DNA Damage

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 : 100 mg/mL (296.45 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.9645 mL	14.8223 mL	29.6446 mL
5 mM	0.5929 mL	2.9645 mL	5.9289 mL
10 mM	0.2964 mL	1.4822 mL	2.9645 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: 2.5 mg/mL (7.41 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DUB-IN-1 is an active inhibitor of ubiquitin-specific proteases (USPs), with an IC_{50} of 0.85 μM for USP8[1].

IC_{50} & Target

IC50: 0.24 μM (USP8)[1]

In Vitro

DUBs-IN-1 (22 d) is an active inhibitor of ubiquitin-specific proteases, with an IC_{50} of 0.85 μM for USP8. DUBs-IN-1 is inactive toward USP7 (IC_{50}, >100 μM). DUBs-IN-1 and its analogs reduce the viability of HCT116 colon and PC-3 prostate cancer cell lines with IC_{50}s ranging from 0.5 μM to 1.5 μM[1].

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

CUSTOMER VALIDATION

- J Adv Res. 2022 Nov;41:1-12.
- Cell Chem Biol. 2021 Apr 27;S2451-9456(21)00213-0.
- J Med Chem. 2022 Oct 11.
- Cell Biol Toxicol. 2022 Jan 13.
- Harvard Medical School LINCS LIBRARY

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REFERENCES

[1]. Colombo M, et al. Synthesis and biological evaluation of 9-oxo-9H-indeno[1,2-b]pyrazine-2,3-dicarbonitrile analogues as potential inhibitors of deubiquitinating enzymes. ChemMedChem. 2010 Apr 6;5(4):552-8.

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