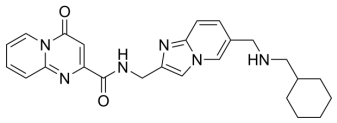
STM2457

Cat. No.:	HY-134836
CAS No.:	2499663-01-1
Molecular Formula:	$C_{25}H_{28}N_6O_2$
Molecular Weight:	444.53
Target:	Apoptosis
Pathway:	Apoptosis

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 : 50 mg/mL (112.48 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2496 mL	11.2478 mL	22.4957 mL
5 mM	0.4499 mL	2.2496 mL	4.4991 mL
10 mM	0.2250 mL	1.1248 mL	2.2496 mL

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

In Vivo

1. Add each solvent one by one: 20% HP-β-CD in saline
   Solubility: 5 mg/mL (11.25 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.68 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.68 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.68 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

STM2457 is a first-in-class, highly potent, selective and orally active METTL3 inhibitor with an IC_{50} of 16.9 nM. STM2457 can be used for the research of acute myeloid leukaemia (AML)[1][2].

In Vitro

STM2457 (Compound 72) inhibits MOLM13 cells proliferation with an IC_{50} of 8.699 μM[1].

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

CUSTOMER VALIDATION

- Nat Biotechnol. 2024 Jan 2.
- Nat Biotechnol. 2023 Mar;41(3):355-366.
- Gastroenterology. 2022 Jun 11;S0016-5085(22)00629-1.
- Nat Commun. 2024 Feb 14;15(1):1353.
- Cancer Commun (Lond). 2022 Mar 9.

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REFERENCES

[1]. Wesley Peter Blackaby, et al. Mettl3 inhibitory compounds. WO2020201773A1.

[2]. Eliza Yankova, et al. Small molecule inhibition of METTL3 as a strategy against myeloid leukaemia. Nature. 2021 Apr 26.

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

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