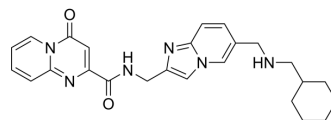


STM2457

Cat. No.:	HY-134836		
CAS No.:	2499663-01-1		
Molecular Formula:	C ₂₅ H ₂₈ N ₆ O 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)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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

- Add each solvent one by one: 20% HP-β-CD in saline
Solubility: 5 mg/mL (11.25 mM); Clear solution; Need ultrasonic
- 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
- 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
- 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 IC₅₀ 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 IC₅₀ 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.
- Cancer Commun (Lond). 2022 Mar 9.
- Cell Rep Med. 2023 Aug 15;4(8):101144.

See more customer validations on www.MedChemExpress.com

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.

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