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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Sinefungin

Cat. No.: HY-101938

CAS No.: 58944-73-3

Molecular Formula: $C_{15}H_{23}N_7O_5$

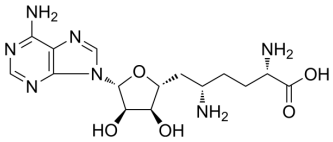
Molecular Weight: 381.39

Target: Histone Methyltransferase; Fungal; Antibiotic; Parasite

Pathway: Epigenetics; Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (262.20 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6220 mL	13.1099 mL	26.2199 mL
	5 mM	0.5244 mL	2.6220 mL	5.2440 mL
	10 mM	0.2622 mL	1.3110 mL	2.6220 mL

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

BIOLOGICAL ACTIVITY

Description

Sinefungin is a potent inhibitor of virion mRNA(guanine-7-)-methyltransferase, mRNA(nucleoside-2'-)-methyltransferase, and viral multiplication[1]. Sinefungin, a SET7/9 inhibitor, ameliorates renal fibrosis by inhibiting H3K4 methylation[2].

In Vitro

Sinefungin (0.5 or 1.0 μg/mL, 60 minutes) ameliorates the TGF-β1-induced increase of α-SMA and inhibits the upregulation of histone H3K4 monomethylation in renal epithelial cells and renal fibroblast cells[2].

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

Western Blot Analysis[2]

Cell Line:	Renal epithelial cells.
Concentration:	0.5 or 1.0 μg/mL.
Incubation Time:	Pretreatment 60 minutes before TGF-β1 (10 ng/mL).
Result:	Significantly reduced TGF-β1-inducedα-SMA protein expression and inhibited H3K4me1 in a dose-dependent manner in both NRK-52E and NRK-49F cells.

In Vivo

Sinefungin (10 mg/kg, per day immediately after UUO) ameliorates renal fibrosis in obstructive nephropathy[2].

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

Animal Model:	Male C57BL/6J mice (8 weeks of age)[2].
Dosage:	10 mg/kg
Administration:	Administered intraperitoneally per day immediately after UUO (prepared as a suspension in distilled water and 0.9% NaCl solution).
Result:	Inhibited α-SMA protein expression. Ameliorated those (α-SMA, FSP-1, collagen 1, collagen 3) both at 3 and 7 days after UUO.

CUSTOMER VALIDATION

- Research Square Print. September 20th, 2022.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Pugh CS, et al. Sinefungin, a potent inhibitor of virion mRNA(guanine-7-)-methyltransferase, mRNA(nucleoside-2'-)-methyltransferase, and viral multiplication. J Biol Chem. 1978 Jun 25;253(12):4075-7.

[2]. Sasaki K, et al. Inhibition of SET Domain-Containing Lysine Methyltransferase 7/9 Ameliorates Renal Fibrosis. J Am Soc Nephrol. 2016 Jan;27(1):203-15.

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