

## Sinefungin

## Chemical Properties

CAS No. : 58944-73-3

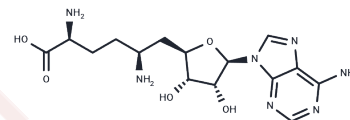
Formula: C<sub>15</sub>H<sub>23</sub>N<sub>7</sub>O<sub>5</sub>

Molecular Weight: 381.39

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Sinefungin (Adenosyl-Ornithine) is an effective inhibitor of virion mRNA(guanine-7-)-methyltransferase, mRNA(nucleoside-2'-)-methyltransferase, and viral multiplication. Sinefungin is a SET7/9 inhibitor and ameliorates renal fibrosis by inhibiting H3K4 methylation.
Targets(IC50)	Histone Methyltransferase,Antibiotic,Parasite,Antifungal
In vitro	Sinefungin (0.5 or 1.0 µg/mL, 60 minutes) mitigates TGF-β1-induced α-SMA increase and inhibits histone H3K4 monomethylation upregulation in renal epithelial and fibroblast cells [2].
In vivo	In obstructive nephropathy, Sinefungin (10 mg/kg, per day immediately after UUO) improves renal fibrosis [2].

## Solubility Information

Solubility	H <sub>2</sub> O: 95 mg/mL (249.09 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.622 mL	13.1099 mL	26.2199 mL
5 mM	0.5244 mL	2.622 mL	5.244 mL
10 mM	0.2622 mL	1.311 mL	2.622 mL
50 mM	0.0524 mL	0.2622 mL	0.5244 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

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.

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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