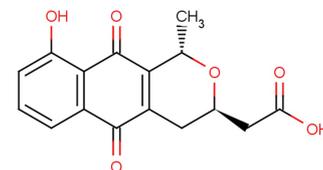


Nanaomycin A

Chemical Properties

CAS No.:	52934-83-5
Formula:	C ₁₆ H ₁₄ O ₆
Molecular Weight:	302.28
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Nanaomycin A is the first selective DNMT3B inhibitor (IC ₅₀ : 500 nM). Nanaomycin A inhibits in vitro growth of the human malaria parasite <i>Plasmodium falciparum</i> (IC ₈₀ : 33.1 nM). Nanaomycin A is quinone antibiotics, reactivates silenced tumor suppressor genes in human cancer cells.
Targets(IC ₅₀)	DNMT3B: 500 nM
In vitro	Nanaomycin A (5 μM; 72 hours) has an 18-fold relative induction. Nanaomycin A (0.5, 5 μM; 72 hours) reveals the induction of RASSF1A protein expression in A549 cells. Nanaomycin A (10-10000 nM; 72 hours) has a distinct cytotoxic effect in all three cell lines. Nanaomycin A does not affect the enzymatic activity of DNMT1 [1] [2].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.308 mL	16.541 mL	33.082 mL
5 mM	0.662 mL	3.308 mL	6.616 mL
10 mM	0.331 mL	1.654 mL	3.308 mL
50 mM	0.066 mL	0.331 mL	0.662 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

- Kuck D, et al. Nanaomycin A selectively inhibits DNMT3B and reactivates silenced tumor suppressor genes in human cancer cells. *Mol Cancer Ther.* 2010 Nov;9(11):3015-23.
- Tanaka Y, et al. Heme-dependent radical generation: possible involvement in antimalarial action of non-peroxide microbial metabolites, nanaomycin A and radicicol. *J Antibiot (Tokyo).* 1999 Oct;52(10):880-8.

Inhibitors · Natural Compounds · Compound Libraries

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