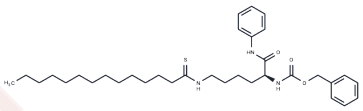
Data Sheet (Cat.No.T3447)

TargetMol

Thiomyristoyl

Chemical Properties



CAS No. : 1429749-41-6

Formula: C34H51N3O3S

Molecular Weight: 581.85

Appearance: no data available

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

Biological Description

Description	Thiomyristoyl is an effective and selective SIRT2 inhibitor (IC50: 28 nM). It inhibits SIRT1 (IC50: 98 μM) but no effect on SIRT3 even at 200 μM.
Targets(IC50)	Sirtuin
In vitro	In a breast cancer mouse model, Thiomyristoyl inhibits SIRT2 and tumor growth, while also reducing the levels of the c-Myc protein. The anticancer effects of Thiomyristoyl are positively correlated with the reduction of c-Myc levels.
In vivo	Thiomyristoyl exhibits weak inhibition towards SIRT3/5/6/7. It can reduce the level of c-MYC in cancer cells in vitro, with the extent of c-MYC reduction directly proportional to the cell line's sensitivity to Thiomyristoyl.
Cell Research	Human MCF-7 cells are grown in DMEM media contained 10% (vol/vol) heat-inactivated fetal bovine serum and 1% penicillin-streptomycin and treated with in the presence of 200 nM TSA for 6 hr. The acetylation level of p53 protein is determined by western blot using anti-acetyl-p53 (K382) antibody. β-actin serves as a loading control. (Only for Reference)

Solubility Information

Solubility	DMSO: 100 mg/mL (171.87 mM),Sonication is recommended. Chloroform: Soluble, H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7187 mL	8.5933 mL	17.1866 mL
5 mM	0.3437 mL	1.7187 mL	3.4373 mL
10 mM	0.1719 mL	0.8593 mL	1.7187 mL
50 mM	0.0344 mL	0.1719 mL	0.3437 mL

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.

Reference

Jing H, et al. Cancer Cell. 2016, 29(3):297-310.