

MC3138

Chemical Properties

CAS No. : 1844889-12-8

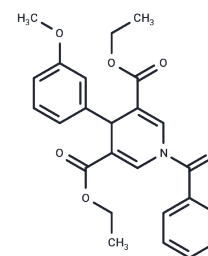
Formula: C₂₅H₂₅NO₆

Molecular Weight: 435.47

Keep away from moisture, 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	MC3138 is a selective SIRT5 activator showing antitumor effects in PDAC cells.
Targets(IC50)	Sirtuin
In vitro	MC3138 (10 μ M, 24 h) inhibited lysine acetylation of GOT1 protein and decreased its enzyme activity in PDAC cells. Treated with MC3138 (50 μ M, 24 or 48 h), MDA-MB-231 and CAL-62 cells, MC3138 reduced HIF-1 α basal expression in MDA-MB-231 wt cells, but not in GLS1 silenced cells. [1] MC3138 decreased PDAC cell viability, with IC50 values ranging from 25.4 μ M to 236.9 μ M. [2]
In vivo	The maximum plasma concentration and half-life of MC3138 are approximately 230 μ M and 5.059 hours, respectively. GOT activity was significantly reduced in PDX xenograft tumor mouse models treated with MC3138 (100-200 μ M). [2]

Solubility Information

Solubility	DMSO: 50 mg/mL (114.82 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 5 mg/mL (11.48 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2964 mL	11.4818 mL	22.9637 mL
5 mM	0.4593 mL	2.2964 mL	4.5927 mL
10 mM	0.2296 mL	1.1482 mL	2.2964 mL
50 mM	0.0459 mL	0.2296 mL	0.4593 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.

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

Barreca F, et al. SIRT5 Activation and Inorganic Phosphate Binding Reduce Cancer Cell Vitality by Modulating Autophagy/Mitophagy and ROS. *Antioxidants (Basel)*. 2023 Aug 18;12(8):1635.

Hu T, et al. Metabolic Rewiring by Loss of Sirt5 Promotes Kras-Induced Pancreatic Cancer Progression. *Gastroenterology*. 2021 Nov;161(5):1584-1600.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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