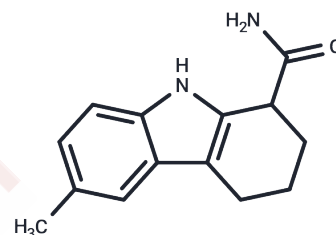


SIRT1-IN-1

Chemical Properties

CAS No. : 352554-02-0
 Formula: C₁₄H₁₆N₂O
 Molecular Weight: 228.29
 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	SIRT1-IN-1 is a selective inhibitor of SIRT1 with an IC ₅₀ of 205 nM. SIRT1-IN-1 is an inhibitor of cytomegalovirus (CMV) with antiviral activity.
Targets(IC ₅₀)	Antiviral,Sirtuin,Virus Protease
In vitro	METHODS: OGD-mediated H9C2 cells were treated with SIRT1-IN-1 (1 nM) and Arctigenin (200 μM). Cell viability and apoptosis were detected by MTT assay and flow cytometry, respectively. The expression of apoptotic proteins was verified by Western blot. RESULTS After SIRT1-IN-1 intervention, cell viability was significantly decreased, cell apoptosis was increased, the activity of pro-apoptotic protein Caspase-3 was increased, and the expression of anti-apoptotic protein Bcl2 was decreased. [3]

Solubility Information

Solubility	DMSO: 45 mg/mL (197.12 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (21.9 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	4.3804 mL	21.902 mL	43.8039 mL
5 mM	0.8761 mL	4.3804 mL	8.7608 mL
10 mM	0.438 mL	2.1902 mL	4.3804 mL
50 mM	0.0876 mL	0.438 mL	0.8761 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

Thomas Shenk, et al. Sirtuin Modulators as Inhibitors of Cytomegalovirus. US20160296523A1.

Andrew D Napper, et al. Discovery of Indoles as Potent and Selective Inhibitors of the Deacetylase SIRT1. J Med Chem. 2005 Dec 15;48(25):8045-54.

Liu CY, et al. AMPK/SIRT1 Pathway is Involved in Arctigenin-Mediated Protective Effects Against Myocardial Ischemia-Reperfusion Injury. Front Pharmacol. 2021 Jan 26;11:616813.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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