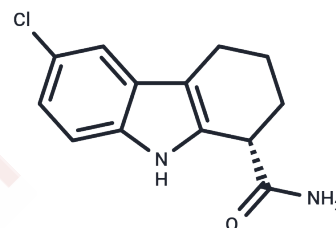


Selisistat S-enantiomer

Chemical Properties

CAS No. :	848193-68-0
Formula:	C ₁₃ H ₁₃ ClN ₂ O
Molecular Weight:	248.71
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	Selisistat S-enantiomer (EX-527 S-enantiomer) is an effective and specific SIRT1 inhibitor (IC ₅₀ = 98 nM) and shows >200-fold selectivity against SIRT2/3.
Targets(IC ₅₀)	Sirtuin
In vitro	Treatment with Selisistat S-enantiomer dramatically increased acetylation at lysine 382 of p53 after different types of DNA damage in primary human mammary epithelial cells and several cell lines. Inhibition of SIRT1 catalytic activity by Selisistat S-enantiomer had no effect on cell growth, viability, or p53-controlled gene expression in cells treated with etoposide [1]. When the function of SIRT1 is inhibited by Selisistat S-enantiomer or its expression is suppressed by RNAi, the upregulated level and release of IL-1 β and TNF- α by high glucose are further increased [2]. When HCT116 cells were cultured in 0.1% serum, addition of Selisistat S-enantiomer caused a 90% increase in cell number after 7 days. In the presence of 10% serum, Selisistat S-enantiomer did not change cell number in long term culture [3].
In vivo	The central pretreatment with Selisistat S-enantiomer blunted the ghrelin-induced food intake in rats. Mice lacking p53, a target of SIRT1 action, failed to respond to ghrelin in feeding behavior. Ghrelin failed to phosphorylate hypothalamic AMPK when rats were pretreated with Selisistat S-enantiomer, as it did in p53 KO mice [4]. Selisistat S-enantiomer abolished RSV-induced attenuation of microvascular inflammation in ob/ob septic mice [5].

Solubility Information

Solubility	DMSO: 20 mg/mL (80.41 mM),Sonication is recommended. Ethanol: 5 mg/mL (20.1 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: 2 mg/mL (8.04 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	4.0207 mL	20.1037 mL	40.2075 mL
5 mM	0.8041 mL	4.0207 mL	8.0415 mL
10 mM	0.4021 mL	2.0104 mL	4.0207 mL
50 mM	0.0804 mL	0.4021 mL	0.8041 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

Napper AD, et al. Discovery of indoles as potent and selective inhibitors of the deacetylase SIRT1. J Med Chem. 2005 Dec 15;48(25):8045-54.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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