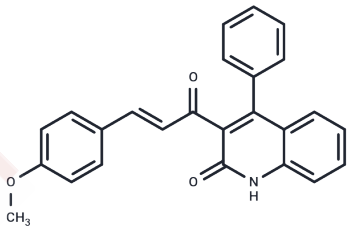
Data Sheet (Cat.No.T10761)

TargetMol

Ceranib-2

Chemical Properties



CAS No. : 1402830-75-4

Formula: C25H19NO3

Molecular Weight: 381.42

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	Ceranib-2 (3-[(E)-3-(4-hydroxyphenyl)prop-2-enoyl]-4-phenyl-1H-quinolin-2-one) is an inhibitor of ceramidase with an IC50 of 28 μM in SKOV3 cells. Ceranib-2 decreases levels of sphingosine and S1P, induces cell apoptosis and exhibits anticancer activity.
Targets(IC50)	Apoptosis,LPL Receptor,S1P Receptor
In vitro	In SKOV3 cells, Ceranib-2 (28 μM) decreases with 50% inhibition and induces the accumulation of multiple ceramide species. Ceranib-2 (10 nM-10 μM) inhibits cell proliferation and survival with an IC50 value of 0.73 μM. Ceranib-2 (0.75-1.5 μM) accumulates cells in the sub-G1. G2 and S phases of the cell cycle are concomitantly reduced in the number of cells in the G1 phase at the dose of 0.75 μM[1].
In vivo	In female Balb/c mice, Ceranib-2 (20-50 mg/kg; i.p.) delays tumor growth without hematologic suppression in a syngeneic tumor model. Ceranib-2 (50 mg/kg; i.p.) increases the circulating levels, reaching a peak plasma concentration of approximately 40 μM at 2 hr[1].

Solubility Information

Solubility	DMSO: 70 mg/mL (183.52 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (6.55 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6218 mL	13.1089 mL	26.2178 mL
5 mM	0.5244 mL	2.6218 mL	5.2436 mL
10 mM	0.2622 mL	1.3109 mL	2.6218 mL
50 mM	0.0524 mL	0.2622 mL	0.5244 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

Draper JM, et al. Discovery and evaluation of inhibitors of human ceramidase. Mol Cancer Ther. 2011 Nov;10(11): 2052-61.

Kus G, et al. Induction of apoptosis in prostate cancer cells by the novel ceramidase inhibitor ceranib-2. In Vitro Cell Dev Biol Anim. 2015 Nov;51(10):1056-63.