

Subasumstat

Chemical Properties

CAS No. : 1858276-04-6

Formula: C₂₅H₂₈ClN₅O₅S₂

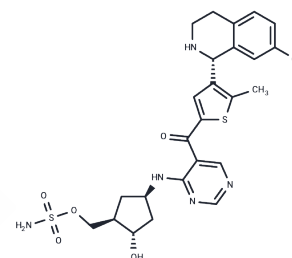
Molecular Weight: 578.1

Storage:

The compound is unstable in solution. Please use soon

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	Subasumstat (TAK-981), a selective inhibitor of the SUMOylation enzymatic cascade, has potential immune-activating and antineoplastic activities.
Targets(IC50)	E1/E2/E3 Enzyme
In vitro	<p>Methods: HL-60 cells were treated with TAK-981 (10nM; 100nM) for 24 h, and the levels of SUMO-1 and SUMO-2/3 were detected by Western blot. To characterize the effect of the SUMOylation inhibitor TAK-981 on AML cells, we first monitored its effect on SUMOylation in three AML model cell lines HL-60, U937, and THP-1.</p> <p>Results: TAK-981 significantly reduced the global SUMOylation level mediated by SUMO-1 and SUMO-2/3 at 10 nM concentration and almost completely abolished it at 100 nM concentration. [1]</p>
In vivo	<p>Methods: TAK-981 (15 mg/kg) was injected intravenously into the tumor model mice to detect the anti-tumor activity in vivo.</p> <p>Results: TAK981 significantly inhibited tumor growth. [2]</p>

Solubility Information

Solubility	DMSO: 122.5 mg/mL (211.9 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	<p>10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.46 mM),Sonication is recommended.</p> <p><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></p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7298 mL	8.649 mL	17.298 mL
5 mM	0.346 mL	1.7298 mL	3.4596 mL
10 mM	0.173 mL	0.8649 mL	1.7298 mL
50 mM	0.0346 mL	0.173 mL	0.346 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

Gabellier L, et al. SUMOylation inhibitor TAK-981 (subasumstat) synergizes with 5-azacytidine in preclinical models of acute myeloid leukemia. *Haematologica*. 2024 Jan 1;109(1):98-114.

Zhang H, et al. Protection of Regulatory T Cells from Fragility and Inactivation in the Tumor Microenvironment. *Cancer Immunol Res*. 2022 Dec 2;10(12):1490-1505.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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