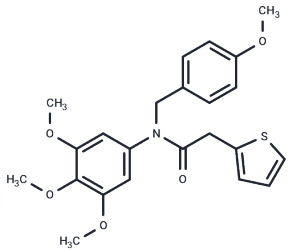
Data Sheet (Cat.No.T62334)

TargetMol

VII-31

Chemical Properties



CAS No. : 2305757-96-2

Formula: C23H25NO5S

Molecular Weight: 427.51

Storage: Store at low temperature
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	VII-31 is an activator of the NEDDylation pathway, capable of inducing apoptosis in MCF-7, PC-3, and MGC-803 cells.
Targets(IC50)	Apoptosis,E1/E2/E3 Enzyme
In vitro	**Methods**: MGC803, MCF-7 and PC-3 cells were treated with VII-31 (0-200 μM, 48 hours), and cell viability was detected by MTT assay. **Results**: VII-31 inhibited the cell viability of MGC803, MCF-7 and PC-3 cells, with IC50 values of 0.09±0.01 μM, 0.10±0.006 and 1.15±0.28 μM, respectively. [1]
In vivo	**Methods**: VII-31 (10, 50, 150 mg/kg, subcutaneous injection, 28 days) was used to treat MGC803 cancer cells to establish a subcutaneous transplant tumor model of human gastric cancer. The tumor size was measured with a caliper to study its effect on tumors in mice. **Results**: Within 28 days after the first treatment, the tumor volume of mice in the VII-31 treatment group was significantly smaller than that in the control group; the tumor weight of the 50 mg/kg VII-31 treatment group was about 36% lower than that in the control group, and the tumor weight of the 100 mg/kg VII-31 and 150 mg/kg VII-31 treatment groups was 42% and 46% lower than that in the control group, respectively. VII-31 was able to inhibit the progression of tumors in mice and had no obvious toxicity to mice. [1]

Solubility Information

Solubility	DMSO: 200 mg/mL (467.83 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 (11.7 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	2.3391 mL	11.6956 mL	23.3913 mL
5 mM	0.4678 mL	2.3391 mL	4.6783 mL
10 mM	0.2339 mL	1.1696 mL	2.3391 mL
50 mM	0.0468 mL	0.2339 mL	0.4678 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

Dong-Jun Fu, et al. Discovery of Novel Tertiary Amide Derivatives as NEDDylation Pathway Activators to Inhibit the Tumor Progression in Vitro and in Vivo. Eur J Med Chem. 2020 Apr 15;192:112153.
Soejima K, et al. Factor VIIa modified in the 170 loop shows enhanced catalytic activity but does not change the zymogen-like property. J Biol Chem. 2001 May 18;276(20):17229-35.