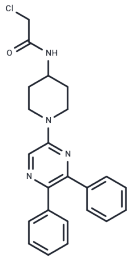
Data Sheet (Cat.No.T87407)

TargetMol

Skp2 inhibitor 1

Chemical Properties



CAS No. : 2760612-63-1

Formula: C23H23ClN4O

Molecular Weight: 406.91

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	Skp2 inhibitor 1 is a Skp2-Cks1 interaction inhibitor (IC50: 2.8μM) with antitumor activity and can be used to study cancer.
Targets(IC50)	Others
In vitro	Skp2 inhibitor 1 (2.8 μM, 72 h) was able to interfere with the interaction between Skp2 and Cks1, with IC50 values of 4.8 μM and 7.0 μM for PC-3 and MGC-803 cells, respectively. [1] At a concentration of 10 μM, after 48 h treatment, Skp2 inhibitor 1 was able to inhibit the proliferation and migration of PC-3 and MGC-803 cells, induced cell arrest in S phase, and promoted apoptosis. [1]
In vivo	Skp2 inhibitor 1, administered at doses of 10 mg/kg, 25 mg/kg, and 50 mg/kg via intragastric administration every two days over a 21-day period, significantly suppressed tumor growth in xenograft models of PC-3 and MGC-803 cells within NOD-SCID mice, showing no notable toxicity. A dose of 50 mg/kg (every 2 days) completely inhibited tumor growth [1]. The compound functions by inhibiting the Skp2 signaling pathway, thereby reducing tumor malignancy and increasing apoptotic cell proportions in tumor tissues [1]. The tumor growth inhibition ratios were 55.68%, 71.86%, and 90.42% for 10, 25, and 50 mg/kg respectively.

Solubility Information

Solubility	DMSO: 132.5 mg/mL (325.62 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: 5.89 mg/mL (14.47 mM),Solution. 10% DMSO+90% Saline: < 5.89 mg/mL (14.47 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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	2.4575 mL	12.2877 mL	24.5755 mL
5 mM	0.4915 mL	2.4575 mL	4.9151 mL
10 mM	0.2458 mL	1.2288 mL	2.4575 mL
50 mM	0.0492 mL	0.2458 mL	0.4915 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

Zhang K, et al. Discovery of Novel 1,3-Diphenylpyrazine Derivatives as Potent S-Phase Kinase-Associated Protein 2 (Skp2) Inhibitors for the Treatment of Cancer. J Med Chem. 2023 Jun 8;66(11):7221-7242.