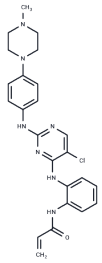
Data Sheet (Cat.No.T36680)

TargetMol

SM1-71

Chemical Properties



CAS No. : 2088179-99-9

Formula: C24H26ClN7O

Molecular Weight: 463.96

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	SM1-71 is a potent multi-targeted acrylamide-modified TAK1 inhibitor that inhibits MKNK2, MAP2K1/2/3/4/6/7, GAK, AAK1, BMP2K, MAP3K7, MAPKAPK5, GSK3A/B, MAPK1/3, SRC, YES1, FGFR1, ZAK (MLTK), MAP3K1, LIMK1 and RSK2.SM1-71 can be used as a kinase probe with anticancer activity and inhibits the proliferation of various cancer cell lines.
Targets(IC50)	FGFR,MAPK,AAK1,LIM Kinase,S6 Kinase,Serine/threonin kinase,Src,TGF-beta/Smad
In vitro	Potently inhibiting the proliferation of H23 and Calu-6 non-small cell lung cancer cell lines in a concentration-dependent manner, SM1-71 (0.001-100 μM; 72 h) demonstrates its efficacy. Additionally, SM1-71 induces potent cytotoxicity within 72 hours, with nanomolar values for GR50 and negative GRmax values observed in eight of 11 cancer cell lines[1][2].

Solubility Information

Solubility	DMSO: 100 mg/mL (215.54 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: 4 mg/mL (8.62 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	2.1554 mL	10.7768 mL	21.5536 mL
5 mM	0.4311 mL	2.1554 mL	4.3107 mL
10 mM	0.2155 mL	1.0777 mL	2.1554 mL
50 mM	0.0431 mL	0.2155 mL	0.4311 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

Rao S, et, al. Leveraging Compound Promiscuity to Identify Targetable Cysteines within the Kinome. Cell Chem Biol. 2019 Jun 20; 26(6): 818-829.e9.

Tan L, et al. Structure-guided development of covalent TAK1 inhibitors. Bioorg Med Chem. 2017 Feb 1; 25(3): 838-846.

Rao S, et al. A multitargeted probe-based strategy to identify signaling vulnerabilities in cancers. J Biol Chem. 2019 May 24;294(21):8664-8673.