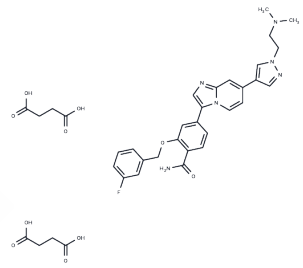
Data Sheet (Cat.No.T11961)

TargetMol

MBM-55S

Chemical Properties



CAS No. : 2083624-07-9

Formula: C36H39FN6O10

Molecular Weight: 734.73

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	MBM-55S is an effective inhibitor of Nek2 with an IC50 of 1 nM. MBM-55S indecus cell cycle arrest and apoptosis thereby inhibiting the proliferation of cancer cells. MBM-55S shows antitumor activities.
Targets(IC50)	Apoptosis,MAPK,Akt,Bcr-Abl,CDK,Aurora Kinase,DYRK,GSK-3,S6 Kinase
In vitro	MBM-55S shows a 20-fold or greater selectivity in most kinases with the exception of RSK1 and DYRK1a with IC50s of 5.4 and 6.5 nM. MBM-55S inhibits MGC-803, HCT-116, and Bel-7402 the proliferation of cell with IC50s of 0.53, 0.84, and 7.13 μM, respectively. MBM-55S (0.5-1 μM) induces G2/M phase arrest and accumulation of cells with >4N content and causes cell apoptosis in a concentration-dependent manner in HCT-116 cells[1].
In vivo	In female BALB/c nu/nu mice, MBM-55S (20 mg/kg; i.p) exhibits good antitumor activity. In male Sprague Dawley rats, MBM-55S (1.0 mg/kg; i.v.) shows good pharmacokinetic profile with the CL, T1/2, Vss, AUC0-t, and AUC0-∞ values of 33.3 mL/min/kg, 1.72 hours, 2.53 L/kg, 495 ng/h/mL and 507 ng/h/mL, respectively[1].

Solubility Information

Solubility	DMSO: 22.5 mg/mL (30.62 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.361 mL	6.8052 mL	13.6104 mL
5 mM	0.2722 mL	1.361 mL	2.7221 mL
10 mM	0.1361 mL	0.6805 mL	1.361 mL
50 mM	0.0272 mL	0.1361 mL	0.2722 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

Xi JB, et al. Structure-based design and synthesis of imidazo[1,2-a]pyridine derivatives as novel and potent Nek2 inhibitors with in vitro and in vivo antitumor activities. Eur J Med Chem. 2017 Jan 27;126:1083-1106.