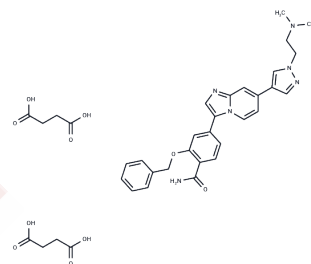


MBM-17S

Chemical Properties

CAS No. :	2083621-91-2
Formula:	C ₃₆ H ₄₀ N ₆ O ₁₀
Molecular Weight:	716.74
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-17S, a potent NIMA-related kinase 2 (Nek2) inhibitor with an IC ₅₀ of 3 nM, effectively inhibits cancer cell proliferation by inducing cell cycle arrest and apoptosis. It demonstrates antitumor activities without evident toxicity to mice.
Targets(IC ₅₀)	Apoptosis, MAPK, Aurora Kinase
In vitro	MBM-17S (0.25-1.0 μM; 24 hours) induced G ₂ /M phase arrest and accumulation of cells with >4N content. MBM-17S (0.5-1.0 μM; 24 hours) triggers apoptosis of cancer cells. MBM-17S inhibits MGC-803, HCT-116, and Bel-7402 cells proliferation with IC ₅₀ s of 0.48, 1.06, and 4.53 μM, respectively.
In vivo	MBM-17S (1.0 mg/kg; i.v.) treatment shows CL, V _{ss} , T _{1/2} , AUC _{0-t} , and AUC _{0-∞} values of 42.4 mL/min/kg, 4.06 L/kg, 2.42 hours, 386 ng/h/mL, and 405 ng/h/mL, respectively. MBM-17S (20 mg/kg; i.p.; twice a day for 21 days) exhibits good antitumor activity and a well-tolerated dose schedule.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3952 mL	6.976 mL	13.9521 mL
5 mM	0.279 mL	1.3952 mL	2.7904 mL
10 mM	0.1395 mL	0.6976 mL	1.3952 mL
50 mM	0.0279 mL	0.1395 mL	0.279 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.

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