

PIP4K-IN-a131

Chemical Properties

CAS No. : 2055405-95-1

Formula: C₂₀H₁₃N₃

Molecular Weight: 295.35

The compound is unstable in solution. Please use soon

Storage:

Powder: -20°C for 3 years

Actual storage temperature shall be subject to the COA.

Biological Description

Description	PIP4K-IN-a131 is a selective inhibitor of phosphatidylinositol-5-phosphate 4-kinase type 2 alpha (PIP4K2A), with inhibitory activity in the micromolar range against PIP4K2A and the broader PIP4K family (IC ₅₀ ≈ 1.9 μM and 0.6 μM, respectively). PIP4K-IN-a131 suppresses PIP4K-mediated lipid signaling and cell cycle-related processes, and exhibits antiproliferative effects in cancer cells.
Targets(IC50)	PI3K
In vitro	PIP4K-IN-a131 (0-100 μM; 72 hours) is an effective antiproliferative agent that exhibits marked selectivity for killing cancer cells. PIP4K-IN-a131 eliminates cancer cells through a dual inhibition mechanism. PIP4K-IN-a131 inhibits the PI3K/Akt/mTOR pathway only in normal BJ cells, but has no inhibitory effect in their transformed counterparts. PIP4K-IN-a131 inhibits the PI3K/Akt/mTOR signaling pathway by upregulating PIK3IP1 transcription through its inhibition of PIP4K, causing normal cells to arrest in the G1/S phase of the cell cycle [1].

Solubility Information

Solubility	DMSO: 50.00 mg/mL (169.29 mM),The compound is unstable in solution. Please use soon. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3858 mL	16.9291 mL	33.8581 mL
5 mM	0.6772 mL	3.3858 mL	6.7716 mL
10 mM	0.3386 mL	1.6929 mL	3.3858 mL
50 mM	0.0677 mL	0.3386 mL	0.6772 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

Mayumi Kitagawa, et al. Dual Blockade of the Lipid Kinase PIP4Ks and Mitotic Pathways Leads to Cancer-Selective Lethality. Nat Commun. 2017 Dec 19;8(1):2200.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481