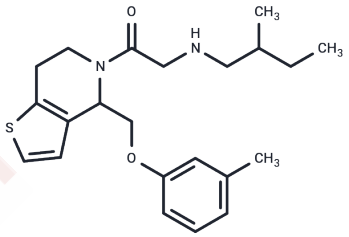
Data Sheet (Cat.No.T12797)

TargetMol

RU-SKI 43

Chemical Properties



CAS No. : 1043797-53-0

Formula: C22H30N2O2S

Molecular Weight: 386.55

Storage: Store at low temperature
Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	RU-SKI 43 is a potent and selective hedgehog acyltransferase (Hhat) inhibitor with an IC50 of 850 nM. It exhibits anticancer activity and is a potential treatment for lung adenocarcinomas. RU-SKI 43 reduces Gli-1 activation through smoothening-independent non-canonical signaling and inhibits Akt and mTOR pathway activity.
Targets(IC50)	Hedgehog/Smoothened,Acyltransferase
In vitro	RU-SKI 43 (10 or 20 μM; 5 h; AsPC-1 and Panc-1 pancreatic cancer cells) causes dose-dependent inhibition of Shh palmitoylation following only 5 hours.[1] RU-SKI 43 acts as an uncompetitive inhibitor with a Ki of 7.4 μM concerning Shh, while it functions with a Ki of 6.9 μM regarding 125I-iodo-palmitoylCoA.[1] RU-SKI 43 (10μM; 48 h; AsPC-1 and Panc-1 pancreatic cancer cells) leads to reduced phosphorylation (47-67% decrease) of four proteins within the Akt pathway, which encompass Akt (phosphorylated at Thr307 and Ser473), PRAS40, Bad, and GSK-3β. Additionally, RU-SKI 43 treatment results in decreased phosphorylation of mTOR and S6, both of which are constituents of the mTOR signaling pathway.[2] RU-SKI 43 (10 μM; for 6 days) strongly decreases cell proliferation (83% in AsPC-1 cells) in AsPC-1 and Panc-1 cells.[2] RU-SKI 43 (10 μM; for 72 h; AsPC-1 and Panc-1 pancreatic cancer cells) causes a 40% decrease in Gli-1 levels in AsPC-1 cells.[2]
In vivo	After IV administration,RU-SKI 43 has a t1/2 of 17 min in mouse plasma.[1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.587 mL	12.9349 mL	25.8699 mL
5 mM	0.5174 mL	2.587 mL	5.174 mL
10 mM	0.2587 mL	1.2935 mL	2.587 mL
50 mM	0.0517 mL	0.2587 mL	0.5174 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

Petrova E, et al. Inhibitors of Hedgehog acyltransferase block Sonic Hedgehog signaling.Nat Chem Biol. 2013 Apr; 9(4):247-9.
Petrova E, et al. Hedgehog acyltransferase as a target in pancreatic ductal adenocarcinoma. Oncogene. 2014 Jan 27.