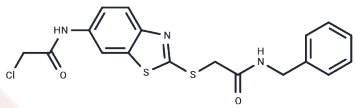
Data Sheet (Cat.No.T26193)

TargetMol

SKLB-163

Chemical Properties



CAS No. : 1255099-06-9

Formula: C18H16ClN3O2S2

Molecular Weight: 405.92

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	SKLB-163 is a small-molecule inhibitor and a RhoGDI inhibitor with oral bioactivity, cell permeability, and selectivity. This compound induces tumor cell apoptosis, inhibits proliferation and migration, and enhances radiosensitivity by downregulating RhoGDI, activating the JNK-1/caspase-3 pathway, and suppressing Akt and p44/42 MAPK phosphorylation.
Targets(IC50)	Apoptosis,MAPK,Akt,Caspase,Rho,JNK
In vitro	**Methods**: Nasopharyngeal carcinoma (NPC) cells were treated with various concentrations (0-20 μM) of SKLB-163 for 48 h, and changes in cell proliferation, migration, and radiosensitivity were detected. **Results**: SKLB-163 inhibited proliferation and migration of nasopharyngeal carcinoma (NPC) cells and sensitized the cells to radiation. [1] **Methods**: A375, SPC-A1, SW620, HeLa, and PC-3 cells were treated with various concentrations (0-20 μM) of SKLB-163 for 48 h to detect cytotoxic effects. A375 cells were treated with various concentrations (0-2.5 μM) of SKLB-163 for 48 h to detect apoptosis and colony formation. **Results**: SKLB-163 showed cytotoxic effects in A375, SPC-A1, SW620, HeLa, and PC-3 cells, and could induce apoptosis and inhibit colony formation in A375 cells. [2]
In vivo	**Methods**: To detect in vivo antitumor and radiosensitizing effects, SKLB-163 (25-100 mg/kg, gavage, once daily for 30 days) was administered alone in a nasopharyngeal carcinoma mouse model, or combined with radiotherapy (3 Gy radiation once daily for 3 days starting on day 6 of SKLB-163 administration). **Results**: SKLB-163 alone inhibited tumor growth and ascites formation, and suppressed liver and lung metastasis; combined administration sensitized nasopharyngeal carcinoma tumors to radiation. [1]

Solubility Information

Solubility	DMSO: 247.5 mg/mL (609.73 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4635 mL	12.3177 mL	24.6354 mL
5 mM	0.4927 mL	2.4635 mL	4.9271 mL
10 mM	0.2464 mL	1.2318 mL	2.4635 mL
50 mM	0.0493 mL	0.2464 mL	0.4927 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

He J, et al. Antitumor and radiosensitizing effects of SKLB-163, a novel benzothiazole-2-thiol derivative, on nasopharyngeal carcinoma by affecting the RhoGDI/JNK-1 signaling pathway. Radiother Oncol. 2018 Oct;129(1): 30-37.

Peng X,et al. SKLB-163, a new benzothiazole-2-thiol derivative, exhibits potent anticancer activity by affecting RhoGDI/JNK-1 signaling pathway. Cell Death Dis. 2014 Mar 27;5(3):e1143.

Peng X, Xie G, Wang Z, Lin H, Zhou T, Xiang P, Jiang Y, Yang S, Wei Y, Yu L, Zhao Y. SKLB-163, a new benzothiazole-2-thiol derivative, exhibits potent anticancer activity by affecting RhoGDI/JNK-1 signaling pathway. Cell Death Dis. 2014 Mar 27;5:e1143.