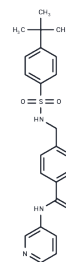


STF-31

Chemical Properties

CAS No. :	724741-75-7
Formula:	C ₂₃ H ₂₅ N ₃ O ₃ S
Molecular Weight:	423.53
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	STF-31 is an inhibitor of glucose transporter 1 (GLUT1) with IC ₅₀ of 1 μM.
Targets(IC ₅₀)	transporter, Autophagy
In vitro	STF-31 selectively kills RCCs by specifically targeting glucose uptake through GLUT1. STF-31 significantly inhibits lactate production and extracellular acidification in VHL-deficient cells by about 60%, and decreases glycolysis by decreasing glucose transport. [1] In NAPRT1-expressing cells, STF-31 shows cytotoxicity by inhibiting the enzymatic activity of NAMPT. [2] STF-31 is toxic to hPSCs and efficient for selective elimination of hPSCs from mixed cultures. [3]
In vivo	In mice with VHL-deficient RCC xenografts, a more soluble analog of STF-31 (11.6 mg/kg, i.p.) markedly delays tumor growth. [1]

Solubility Information

Solubility	Ethanol: 25 mg/mL (59.03 mM), DMSO: 42.4 mg/mL(100 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3611 mL	11.8055 mL	23.6111 mL
5 mM	0.4722 mL	2.3611 mL	4.7222 mL
10 mM	0.2361 mL	1.1806 mL	2.3611 mL
50 mM	0.0472 mL	0.2361 mL	0.4722 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.

Reference

Chan DA, et al. Sci Transl Med. 2011, 3(94), 94ra70.

Adams DJ, et al. ACS Chem Biol. 2014, 9(10), 2247-2254.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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