

F5446

Chemical Properties

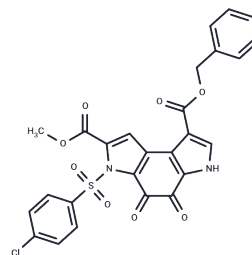
CAS No. : 2304465-89-0

Formula: C₂₆H₁₇ClN₂O₈S

Molecular Weight: 552.94

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	F5446 is a selective small molecule SUV39H1 methyltransferase inhibitor. It promotes apoptosis in colorectal cancer cells by inhibiting the deposition of H3K9me3 on the FAS promoter to increase Fas expression, while inhibiting CTL effector gene expression.
Targets(IC50)	Apoptosis,Histone Methyltransferase
In vitro	<p>Methods: SW620 and LS411N cells were treated with F5446 (100, 250 nM, 48 h), then fixed, stained with PI, and analyzed for DNA content by flow cytometry.</p> <p>Results: F5446 treatment induced cell cycle arrest at S phase in both SW620 and LS411N cells in a concentration-dependent manner.</p> <p>Methods: SW620, LS411N and CCD841 cells were treated with F5446 (10, 50, 100, 250, 500, 1000 nM) and analyzed for apoptosis.</p> <p>Results: F5446 induced apoptosis in both tumor cell lines in vitro in a concentration-dependent manner. The normal human colon epithelial cell line CCD841 was less sensitive to F5446 in inducing apoptotic cell death than tumor cells. [1]</p>
In vivo	<p>Methods: F5446 (5, 10 mg/kg, intraperitoneal injection, once every two days, for 26 days) was used to treat SW620 and SW620-5FUR cell-transplanted tumor model mice.</p> <p>Results: F5446 can inhibit tumor growth in vivo in a concentration-dependent manner. [1]</p>

Solubility Information

Solubility	DMSO: 80 mg/mL (144.68 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8085 mL	9.0426 mL	18.0851 mL
5 mM	0.3617 mL	1.8085 mL	3.617 mL
10 mM	0.1809 mL	0.9043 mL	1.8085 mL
50 mM	0.0362 mL	0.1809 mL	0.3617 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

Lu C, et al. SUV39H1 regulates human colon carcinoma apoptosis and cell cycle to promote tumor growth. *Cancer Lett.* 2020 Apr 28;476:87-96.

Li X, et al. SUV39H1 Regulates Gastric Cancer Progression via the H3K9me3/ALDOB Axis. *Cell Biochem Biophys.* 2025 Mar;83(1):919-928.

Lu C, et al. SUV39H1 Represses the Expression of Cytotoxic T-Lymphocyte Effector Genes to Promote Colon Tumor Immune Evasion. *Cancer Immunol Res.* 2019 Mar;7(3):414-427.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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