

FDW028

Chemical Properties

CAS No. : 2768426-49-7

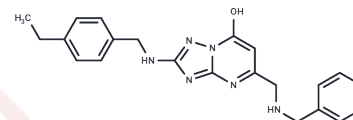
Formula: C₂₂H₂₄N₆O

Molecular Weight: 388.47

Store at low temperature

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	FDW028 is a selective and potent fucosyltransferase 8 (FUT8) inhibitor with anti-tumor activity that drives B7-H3 lysosomal degradation via defucosylation and CMA pathways. FUT8 can be used to study metastatic colorectal cancer (mCRC).
Targets(IC50)	Akt, Autophagy, mTOR, Transferase, B7
In vitro	<p>METHODS: FDW028 (0.316-316 μM, 72 hours) was used to treat SW480 and HCT-8 cells, and cell viability was detected with or without FUT8 knockdown.</p> <p>RESULTS: FDW028 exhibited potent antitumor capabilities in terms of cell proliferation, with half-maximal inhibitory concentration (IC₅₀) values of 5.95 μM and 23.78 μM in SW480 and HCT-8 cells, respectively. [1]</p> <p>METHODS: SW480 and HCT-8 cells were treated with FDW028 (50 μM, 72 hours) for Transwell and wound healing assays.</p> <p>RESULTS: FDW028 significantly inhibited the migration of SW480 and HCT-8 cells. [1]</p>
In vivo	<p>METHODS: FDW028 (10, 20 mg/kg, intravenous injection, 4-6 weeks) was administered to athymic male SCID tumor xenograft mice to explore the effect of FDW028 on CRC growth.</p> <p>RESULTS: FDW028 exerted potent antitumor activity against CRC and significantly inhibited the growth of mouse tumors. [1]</p>

Solubility Information

Solubility	DMSO: 80 mg/mL (205.94 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	2.5742 mL	12.871 mL	25.742 mL
5 mM	0.5148 mL	2.5742 mL	5.1484 mL
10 mM	0.2574 mL	1.2871 mL	2.5742 mL
50 mM	0.0515 mL	0.2574 mL	0.5148 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

Wang M, et al. FDW028, a novel FUT8 inhibitor, impels lysosomal proteolysis of B7-H3 via chaperone-mediated autophagy pathway and exhibits potent efficacy against metastatic colorectal cancer. Cell Death Dis. 2023 Aug 3; 14(8):495.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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