

STAT3-IN-38

Chemical Properties

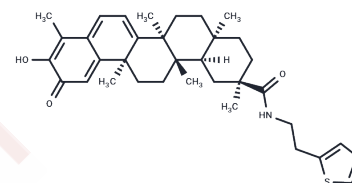
CAS No. : 3033049-16-7

Formula: C₃₅H₄₅NO₃S

Molecular Weight: 559.8

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	STAT3-IN-38 (Compound 4m) is a STAT3 inhibitor with a dissociation constant (K_D) of 45.33 μ M for rhSTAT3, and is a derivative of Celastrol. It binds to the SH2 domain of the STAT3 protein, inhibiting phosphorylation at the pTyr705 site and suppressing downstream gene expression of Survivin and Mcl-1. STAT3-IN-38 can arrest the cell cycle and induce apoptosis in colorectal cancer cells.
Targets(IC50)	Apoptosis,STAT,Survivin
In vitro	STAT3-IN-38 inhibits the phosphorylation of STAT3 in HCT116 cells at concentrations of 0.5-1 μ M for 6 hours, and reduces levels of STAT3 target proteins, including survivin and myeloid cell leukemia 1 (Mcl-1). Additionally, STAT3-IN-38 at 0.02-12.5 μ M for 48 hours suppresses the proliferation of A549, HCT116, and HepG2 cells. At a concentration of 1-5 μ M for 48 hours, it induces apoptosis and cell cycle arrest in HCT116 cells. Moreover, STAT3-IN-38 at 1-10 μ M over 6 days decreases the viability of human colorectal cancer organoids (CCOs).

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7864 mL	8.9318 mL	17.8635 mL
5 mM	0.3573 mL	1.7864 mL	3.5727 mL
10 mM	0.1786 mL	0.8932 mL	1.7864 mL
50 mM	0.0357 mL	0.1786 mL	0.3573 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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