

PROTAC PI3K/110β degrader-2

Chemical Properties

CAS No. : 3070438-79-5

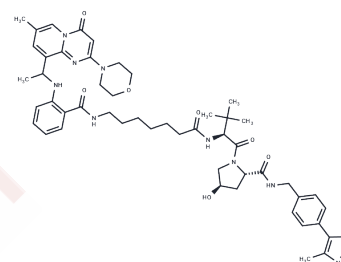
Formula: C51H65N9O7S

Molecular Weight: 948.18

Keep away from direct sunlight

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	PROTACPI3K/110β degrader-2 is a selective PI3K/p110β PROTAC degrader. It effectively degrades the 110β protein and inhibits the expression of P-glycoprotein. Additionally, it increases reactive oxygen species (ROS) levels. PROTACPI3K/110β degrader-2 exerts antitumor effects by activating the endoplasmic reticulum stress (ERS) mediated mitochondrial apoptosis pathway and inhibiting the AKT/Bcl-2 signaling pathway. This compound is applicable in cancer research.
Targets(IC50)	Apoptosis,ATPase,Bcl-2 Family,Akt,P-gp,PI3K,PROTACs,ROS
In vitro	PROTAC PI3K/110β degrader-2 (Compound J-6) exhibits significant antitumor activity in A549 (IC50 = 58.2 μM), A549/DDP (IC50 = 39.23 μM), MCF-7 (IC50 = 53.99 μM), and MCF-7/ADM (IC50 = 38.73 μM) cell lines. This compound selectively degrades the 110β protein in MCF-7/ADM and A549/DDP cells in a time and concentration-dependent manner (0-50 μM, 0-48 hours). Furthermore, at concentrations of 0-25 μM for 24 hours, it markedly increases ROS levels, reduces mitochondrial membrane potential, and triggers ERS-mediated apoptosis in the same cell lines. Additionally, it inhibits Na ⁺ /K ⁺ -ATPase activity and decreases P-glycoprotein expression in MCF-7/ADM and A549/DDP cells.
In vivo	Compound J-6, known as PROTAC PI3K/110β degrader-2, administered at a dosage of 50 mg/kg via intraperitoneal injection every other day for a total of 7 treatments, effectively inhibits tumor growth by degrading the 110β protein in female MCF-7/ADM tumor BALB/c mice.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0547 mL	5.2733 mL	10.5465 mL
5 mM	0.2109 mL	1.0547 mL	2.1093 mL
10 mM	0.1055 mL	0.5273 mL	1.0547 mL
50 mM	0.0211 mL	0.1055 mL	0.2109 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

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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