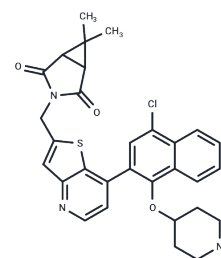


USP7-IN-18

Chemical Properties

CAS No. : 3052223-40-9
 Formula: C₃₀H₂₈ClN₃O₃S
 Molecular Weight: 546.08
 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	USP7-IN-18 (Compound X21) serves as a novel USP7 inhibitor by directly suppressing enzyme activity and modulating downstream pathways, including the newly identified PCLAF target. At concentrations of 0.25-1 μ M for 24 hours, it exhibits inhibitory effects. USP7-IN-18 effectively reduces proliferation in leukemia (RS4;11) and colon cancer (MC38/CT26.WT) cells at 0.01-100 μ M over 72 hours. It demonstrates high selectivity for USP7 at 2.5 μ M within 0.5 hours, surpassing eight other deubiquitinating enzymes. SPR analysis shows that at 1.95-2000 nM for 3 minutes, the compound binds the catalytic domain of USP7 with a KD value of 4.9 μ M.
Targets(IC50)	DNA Methyltransferase,DUB,MDM-2/p53
In vitro	USP7-IN-18 binds to the catalytic domain of USP7 with a K D value of 4.9 μ M, as determined by SPR analysis within the concentration range of 1.95-2000 nM over 3 minutes. Also known as Compound X21, USP7-IN-18 (0.25-1 μ M, 24 h) acts as an innovative USP7 inhibitor by directly hindering enzyme activity and modulating downstream pathways, which include the newly identified target PCLAF. Moreover, at concentrations between 0.01-100 μ M over 72 hours, USP7-IN-18 significantly curbs the proliferation of RS4;11 leukemia and MC38/CT26.WT colon cancer cells. It demonstrates high selectivity for USP7 over eight other deubiquitinating enzymes at a concentration of 2.5 μ M for 0.5 hours.
In vivo	USP7-IN-18 (Compound X21), administered intraperitoneally at doses of 5 mg/kg and 10 mg/kg once daily for 16 consecutive days, significantly inhibits tumor growth in C57BL/6J mice with MC38 tumors.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8312 mL	9.1562 mL	18.3123 mL
5 mM	0.3662 mL	1.8312 mL	3.6625 mL
10 mM	0.1831 mL	0.9156 mL	1.8312 mL
50 mM	0.0366 mL	0.1831 mL	0.3662 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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