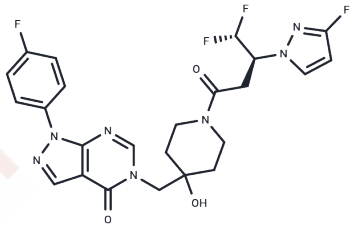
Data Sheet (Cat.No.T12621L)

TargetMol

FT671

Chemical Properties



CAS No. : 1959551-26-8

Formula: C24H23F4N7O3

Molecular Weight: 533.48

Storage: Store at low temperature
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	FT671 is a non-covalent, selective USP7 inhibitor (IC50=52 nM) that binds to the catalytic domain of USP7 (Kd=7.8 μM). It disrupts the stability of USP7 substrates including MDM2, elevates p53, induces p21, and inhibits tumor growth in mice.
Targets(IC50)	DUB
In vitro	FT671 induces degradation of N-Myc protein and upregulation of p53 protein in the neuroblastoma cell line IMR-32. FT671 can elevate p53 protein levels in HCT116 colon carcinoma cells or the osteosarcoma (U2OS) cell line, thereby inducing the expression of p53 target genes, including BBC3 (encoding PUMA protein), CDKN1A (p21), RPS27L (S27L), and MDM2. FT671 also stabilizes p53 protein by enhancing MDM2 ubiquitination in the MM.1S multiple myeloma cell line, consequently promoting the expression of p53 target genes.
In vivo	FT671 (100 mg/kg and 200 mg/kg, oral gavage, daily) demonstrated significant dose-dependent tumor growth inhibition in mice.

Solubility Information

Solubility	DMSO: 25 mg/mL (46.86 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8745 mL	9.3724 mL	18.7448 mL
5 mM	0.3749 mL	1.8745 mL	3.749 mL
10 mM	0.1874 mL	0.9372 mL	1.8745 mL
50 mM	0.0375 mL	0.1874 mL	0.3749 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

Xu X, et al. Virtual Screening Inhibitors of Ubiquitin-specific Protease 7 combining Pharmacophore Modeling and Molecular Docking. Molecular Informatics. 2022

Xu X, Zhang S, Wang Y, et al. Virtual Screening Inhibitors of Ubiquitin-specific Protease 7 combining Pharmacophore Modeling and Molecular Docking. Molecular Informatics. 2022

Li H, Sun Y, Yin H, et al.Virtual screening of natural products targeting ubiquitin-specific protease 7.Journal of Biomolecular Structure and Dynamics.2024: 1-8.

Li H, Sun Y, Yin H, et al.Virtual screening of natural products targeting ubiquitin-specific protease 7.Journal of Biomolecular Structure and Dynamics.2024: 1-8.