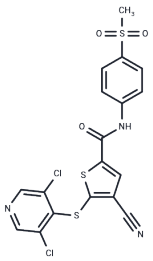
Data Sheet (Cat.No.T4338)

TargetMol

USP7/USP47 inhibitor

Chemical Properties



CAS No. : 1247825-37-1

Formula: C18H11Cl2N3O3S3

Molecular Weight: 484.4

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	USP7/USP47 inhibitor (USP7/47 inhibitor-1) is a selective ubiquitin-specific protease 7/47 (USP7/USP47) inhibitor, with EC50s of 0.42 μM and 1.0 μM, respectively.
Targets(IC50)	DUB
In vitro	USP7/USP47 inhibitor does not inhibit caspase 3, calpain 1, 20S proteasome, and a panel of representative USPs (USP2, USP5, USP8, USP21, and USP28; EC50 > 31.6 μM). USP7/USP47 inhibitor inhibits the growth of HCT-116 cells with an EC50 of 7.6 μM.
Kinase Assay	The cloning, expression and purification of USP21 from BL21 (DE3) bacteria are performed using standard molecular biology techniques. USP2, USP5, USP7, USP8, USP28, USP47, Ub-PLA2 (Ub-CHOP) and Ub-EKL (Ub-CHOP2) are generated. Caspase 3 and the caspase 3 substrate DEVD-Rh110 are used. Deubiquitylating enzyme, cathepsin B and 20S proteasome chymotrypsin like protease activities are measured. Caspase 3 activity is determined using a similar protocol. Briefly, dose ranges of compound (including USP7/USP47 inhibitor) are incubated with caspase 3 for 30 minutes before the addition of DEVD-Rh110 and reading on a fluorometric plate reader using excitation and emission maxima of 485 nm and 531 nm respectively. The final concentrations of caspase 3 and DEVD-Rh110 are 2 nM and 100 nM respectively

Solubility Information

Solubility	DMSO: 45 mg/mL (92.9 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0644 mL	10.322 mL	20.6441 mL
5 mM	0.4129 mL	2.0644 mL	4.1288 mL
10 mM	0.2064 mL	1.0322 mL	2.0644 mL
50 mM	0.0413 mL	0.2064 mL	0.4129 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.

Reference

Weinstock J, et al. Selective Dual Inhibitors of the Cancer-Related Deubiquitylating Proteases USP7 and USP47. ACS Med Chem Lett. 2012 Sep 11;3(10):789-92.