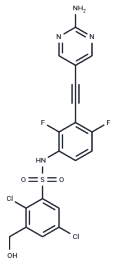
Data Sheet (Cat.No.T11374)

TargetMol

GCN2-IN-6

Chemical Properties



CAS No. : 2183470-09-7

Formula: C19H12Cl2F2N4O3S

Molecular Weight: 485.29

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	GCN2-IN-6 is a potent and orally available GCN2 inhibitor confirmed by in-house enzymatic (IC50: 1.8 nM) and cellular assays (IC50: 9.3 nM). GCN2-IN-6 is also an eIF2α kinase PERK inhibitor with IC50s of 0.26 nM in enzymatic assay and 230 nM in cells respectively.
Targets(IC50)	PERK
In vitro	The moderate antiproliferative effects achieved by combining asparaginase and GCN2-IN-6 treatment are observed in GCN2-wildtype (WT) mouse embryonic fibroblast (MEF) cells but not in GCN2-knockout (KO) MEF. GCN2-IN-6 demonstrates suppression on p-GCN2, p-eIF2α, and ATF4 activated by asparaginase. To examine the impact of GCN2 inhibition on cancer cell proliferation, acute lymphoblastic leukemia (ALL) CCRFCEM cells are treated with GCN2-IN-6 (Compound 6d) in the presence of asparagine depleting agent asparaginase. Treatment with GCN2-IN-6 greatly sensitizes CCRF-CEM cells to asparaginase.
In vivo	GCN2-IN-6 (0.3-3 mg/kg;oral administration;for 8 hours;mice) treatment at 3 mg/kg suppresses both self-phosphorylation of GCN2 and the downstream effector ATF4 to the basal level following pretreatment with asparaginase.

Solubility Information

Solubility	DMSO: 250 mg/mL (515.16 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (10.3 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0606 mL	10.3031 mL	20.6062 mL
5 mM	0.4121 mL	2.0606 mL	4.1212 mL
10 mM	0.2061 mL	1.0303 mL	2.0606 mL
50 mM	0.0412 mL	0.2061 mL	0.4121 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

Fujimoto J, et al. Identification of Novel, Potent, and Orally Available GCN2 Inhibitors with Type I Half Binding Mode. ACS Med Chem Lett. 2019 Sep 19;10(10):1498-1503.