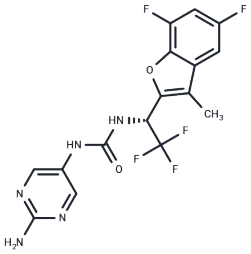
Data Sheet (Cat.No.T78211)

TargetMol

STX-478

Chemical Properties



CAS No. : 2883540-92-7

Formula: C16H12F5N5O2

Molecular Weight: 401.29

Storage: Keep away from moisture
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	STX-478 is an orally active and selective PI3Kα inhibitor that penetrates the blood-brain barrier and has anticancer activity to inhibit tumor growth.STX-478 is indicated for the study of breast cancer and other cancers.
Targets(IC50)	PI3K
In vitro	STX-478 (0-10,000 nM ; 1 h) targeted the MCF10A cells (with the H1047R kinase domain mutation)[1].
In vivo	In Female BALB/c nude mice (CAL-33 xenograft model), STX-478 (30, 100 mg/kg; oral administration) showed a dose-dependent reduction in tumor volume[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (249.2 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 (12.46 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	2.492 mL	12.4598 mL	24.9196 mL
5 mM	0.4984 mL	2.492 mL	4.9839 mL
10 mM	0.2492 mL	1.246 mL	2.492 mL
50 mM	0.0498 mL	0.2492 mL	0.4984 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

JR David St Jean, et al. Urea derivatives which can be used to treat cancer. Patent WO2022265993A1.