

KTC1101

Chemical Properties

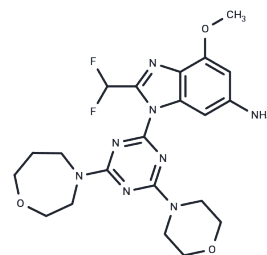
CAS No. : 2764833-47-6

Formula: C₂₁H₂₆F₂N₈O₃

Molecular Weight: 476.48

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	KTC1101 is an oral-active, pan-PI3K inhibitor targeting tumor cell proliferation and tumor microenvironment, with anti-proliferative and anti-tumor activity, reducing downstream AKT and mTOR phosphorylation.
Targets(IC50)	Akt,mTOR,PI3K
In vitro	The IC ₅₀ values of KTC1101 for PI3K α , PI3K β , PI3K δ and PI3K γ were 3.72 nM, 36.29 nM, 1.22 nM and 17.09 nM, respectively. KTC1101 effectively inhibited the PI3K signaling pathway, and the phosphorylation of PI3K downstream effector AKT and mTOR was decreased. [1]
In vivo	In mice, KTC1101 (100 mg/kg) has good oral effect, T _{max} is 0.67 h, C _{max} is 1.66 μ g/mL, AUC _{0-t} is 9.33 μ g/mL*h. KTC1101 (100 mg/kg) showed favorable tumor inhibition in mice in four tumor models tested (PC3, CAL33, and HSC2). [1]

Solubility Information

Solubility	DMSO: 20 mg/mL (41.97 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0987 mL	10.4936 mL	20.9872 mL
5 mM	0.4197 mL	2.0987 mL	4.1974 mL
10 mM	0.2099 mL	1.0494 mL	2.0987 mL
50 mM	0.042 mL	0.2099 mL	0.4197 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

Peng X, et al. A novel pan-PI3K inhibitor KTC1101 synergizes with anti-PD-1 therapy by targeting tumor suppression and immune activation. *Mol Cancer*. 2024 Mar 14;23(1):54.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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