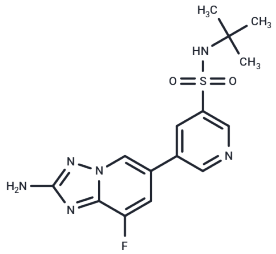
Data Sheet (Cat.No.T1949)

TargetMol

CZC24832

Chemical Properties



CAS No. : 1159824-67-5

Formula: C15H17FN6O2S

Molecular Weight: 364.4

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	CZC24832 is a selective inhibitor of PI 3-kinase γ.
Targets(IC50)	PI3K
In vitro	In a therapeutic model of collagen-induced arthritis (CIA), mice administered 10 mg/kg of CZC24832 orally twice daily exhibited significant reductions in both bone and cartilage destruction and overall clinical parameters. Additionally, in an IL-8-dependent air-pouch model, CZC24832 demonstrated a dose-dependent decrease in granulocyte recruitment, consistent with the level of inhibition observed in mice lacking PI3Kγ.
In vivo	In the BT system, treatment with CZC24832 significantly inhibits IL-17A (IC50 = 1.5 μM) as well as B-cell activation markers, such as IL-6 and IgG. Moreover, in T-cell systems, such as in human umbilical vein endothelial cells, the production of IL17A is strongly suppressed, indicating that PI3Kγ kinase activity plays a broad role in the functionality of TH17 cells. Accordingly, CZC24832 inhibits the differentiation of TH17 cells. A high-throughput screening of 154 lipid and protein kinases, alongside 922 other proteins, identified only PI3Kβ and PIP4K2C as off-target proteins within a 100-fold selectivity window.
Kinase Assay	AZD4547 kinase activity: The ability of AZD4547 to inhibit the human recombinant kinase activities of FGFR1-3 is tested using ATP concentrations at, or just below, the respective Km.

Solubility Information

Solubility	DMSO: 36.4 mg/mL (99.89 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (5.49 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	2.7442 mL	13.7212 mL	27.4424 mL
5 mM	0.5488 mL	2.7442 mL	5.4885 mL
10 mM	0.2744 mL	1.3721 mL	2.7442 mL
50 mM	0.0549 mL	0.2744 mL	0.5488 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

Bergamini G, et al. Nat Chem Biol, 2012, 8(6), 576-582.
Huang Q, Ru Y, Luo Y, et al.Identification of a targeted ACSL4 inhibitor to treat ferroptosis-related diseases.Science Advances.2024, 10(13): eadk1200.