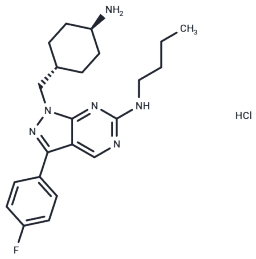
Data Sheet (Cat.No.T21302L)

TargetMol

UNC 569 hydrochloride

Chemical Properties



CAS No. :

Formula: C22H30ClFN6

Molecular Weight: 432.96

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	UNC 569 hydrochloride is a reversible and ATP-competitive inhibitor of Mer with an IC50 of 2.9 nM and a Ki of 4.3 nM. UNC 569 hydrochloride inhibits Axl and Tyro3 with IC50s of 37 nM and 48 nM, respectively. UNC 569 hydrochloride can be used in studies about acute lymphoblastic leukemia and atypical teratoid/rhabdoid tumors.
Targets(IC50)	TAM Receptor,TAM Receptor
In vitro	UNC 569 hydrochloride inhibits Mer phosphorylation levels with IC50 values of 141 nM and 193 nM in human B-ALL 697 and Jurkat cell lines, respectively. UNC 569 hydrochloride (1 μM) treatment effectively inhibits the activation of Mer and downstream signaling, including the PI3K/AKT and MAPK/ERK pathways. In ALL cell lines, UNC 569 hydrochloride (0.4 -2 μM) induces apoptosis and increases the levels of cleaved Caspase 3 and cleaved PARP[1].
In vivo	In Leukemic zebrafish, UNC 569 hydrochloride (4 μM) induces more than 50% reduction in tumor burden compared with vehicle- and mock-treated fish[1]. UNC 569 hydrochloride has low systemic clearance (19.5 mL/min/kg), high volume of distribution (Vss of 5.83 L/kg), and good oral bioavailability (57%)[2].

Solubility Information

Solubility	0.1M HCl: 6 mg/mL (13.86 mM),Sonication and heating are recommended. DMSO: 3.61 mg/mL (8.34 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3097 mL	11.5484 mL	23.0968 mL
5 mM	0.4619 mL	2.3097 mL	4.6194 mL
10 mM	0.231 mL	1.1548 mL	2.3097 mL
50 mM	0.0462 mL	0.231 mL	0.4619 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

Sandra Christoph, et al. UNC569, a novel small-molecule mer inhibitor with efficacy against acute lymphoblastic leukemia in vitro and in vivo. Mol Cancer Ther. 2013 Nov;12(11):2367-77.
Jing Liu, et al. Discovery of Novel Small Molecule Mer Kinase Inhibitors for the Treatment of Pediatric Acute Lymphoblastic Leukemia. ACS Med Chem Lett. 2012 Feb 9;3(2):129-134.