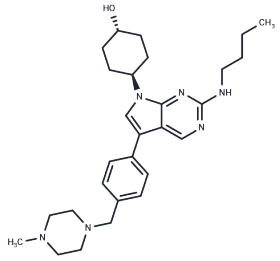
Data Sheet (Cat.No.T7007)

TargetMol

UNC2025

Chemical Properties



CAS No. : 1429881-91-3

Formula: C28H40N6O

Molecular Weight: 476.66

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	UNC2025 (mrx-6313)(IC50 of 0.74 nM and 0.8 nM) is a potent and orally bioavailable dual MER/FLT3 inhibitor. UNC-2025 is about 20-fold selectivity higher than Axl and Tyro3.
Targets(IC50)	FLT,TAM Receptor
In vitro	In 697 B-ALL cells, UNC-2025 potently inhibits Mer phosphorylation with IC50 of 2.7 nM. In A549 NSCLC and Molm-14 AML cell lines, UNC-2025 causes significant inhibition of colony formation dependent on Mer8 and Flt3. [1] In H2228 and H1299 cell lines, UNC-2025 inhibits MERTK oncogenic signaling downstream, such as basal and stimulated pAKT and pERK1/2. In four NSCLC cell lines, UNC-2025 also induces apoptotic cell death, and decreases colony formation. [2]
In vivo	In mice bearing 697 acute leukemia tumors, UNC-2025 (3 mg/kg, p.o.) shows good solubility and DMPK properties, and results in effective target inhibition. [1] In mice bearing H2228 or A549 tumors, UNC-2025 (50 mg/kg, p.o.) inhibits tumor growth. [2]

Solubility Information

Solubility	H2O: Insoluble Ethanol: 8 mg/mL (16.78 mM),Heating is recommended. DMSO: 35.71 mg/mL (74.92 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: 4 mg/mL (8.39 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	2.0979 mL	10.4897 mL	20.9793 mL
5 mM	0.4196 mL	2.0979 mL	4.1959 mL
10 mM	0.2098 mL	1.049 mL	2.0979 mL
50 mM	0.042 mL	0.2098 mL	0.4196 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

Zhang W, et al. J Med Chem. 2014, 57(16), 7031-7041.
Wei S, Guan G, Luan X, et al.NLRP3 inflammasome constrains liver regeneration through impairing MerTK-mediated macrophage efferocytosis.Science Advances.2025, 11(1): eadq5786.
Cummings CT, et al. Mol Cancer Ther. 2015, 14(9), 2014-2022.