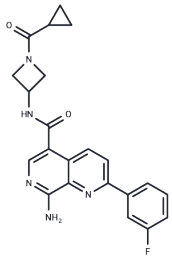
Data Sheet (Cat.No.TQ0079)

TargetMol

GNE-495

Chemical Properties



CAS No. : 1449277-10-4

Formula: C22H20FN5O2

Molecular Weight: 405.42

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	GNE-495 is a potent and specific inhibitor of MAP4K4 with an IC50 of 3.7 nM.
Targets(IC50)	MAPK
In vitro	GNE-495 has efficacy in retinal angiogenesis. GNE-495 shows the best balance of MAP4K4 inhibition, permeability, microsomal stability, and cellular potency.
In vivo	GNE-495 is administered at high doses (25 and 50 mg/kg) intraperitoneally to neonatal mice. This compound demonstrates superior potency and favorable pharmacokinetic (PK) profiles across all tested species, characterized by low clearance rates, moderate terminal half-lives, and acceptable levels of oral bioavailability (F=37-47%).

Solubility Information

Solubility	DMSO: 2 mg/mL (4.93 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4666 mL	12.3329 mL	24.6658 mL
5 mM	0.4933 mL	2.4666 mL	4.9332 mL
10 mM	0.2467 mL	1.2333 mL	2.4666 mL
50 mM	0.0493 mL	0.2467 mL	0.4933 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

Ndubaku CO et al. Structure-Based Design of GNE-495, a Potent and Selective MAP4K4 Inhibitor with Efficacy in Retinal Angiogenesis. ACS Med Chem Lett. 2015 Jun 29;6(8):913-8.

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