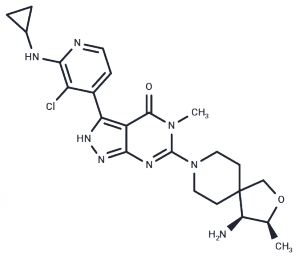
Data Sheet (Cat.No.T39726)

TargetMol

SHP389

Chemical Properties



CAS No. : 2235394-90-6

Formula: C23H29ClN8O2

Molecular Weight: 484.98

Storage: Store at low temperature
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	SHP389 is a highly effective allosteric inhibitor of SHP2, inhibiting SHP2 and p-ERK, used in cancer research.
Targets(IC50)	ERK,Phosphatase
In vitro	SHP389 is an allosteric inhibitor of SHP2 with IC50 of 36 nM for SHP2. SHP389 showed high clearance in rat liver microsomes in vitro (Cl = 26.1 μL/min/mg, T1/2 = 53.2 min), large distribution volume (3.9 L/kg), terminal half-life of 2.7 h, and oral bioavailability of 2%. [2]
In vivo	SHP389 modulates MAPK signaling in vivo[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (164.96 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: 5 mg/mL (10.31 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	2.0619 mL	10.3097 mL	20.6194 mL
5 mM	0.4124 mL	2.0619 mL	4.1239 mL
10 mM	0.2062 mL	1.031 mL	2.0619 mL
50 mM	0.0412 mL	0.2062 mL	0.4124 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

Guo Z, et al. Advances in SHP2 tunnel allosteric inhibitors and bifunctional molecules. Eur J Med Chem. 2024 Sep 5; 275:116579.

Bagdanoff JT, et al. Optimization of Fused Bicyclic Allosteric SHP2 Inhibitors. J Med Chem. 2019 Feb 28;62(4):1781-1792.