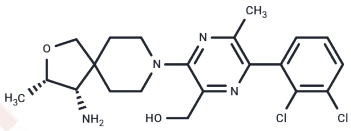
Data Sheet (Cat.No.T16762)

TargetMol

RMC-4550

Chemical Properties



CAS No. : 2172651-73-7

Formula: C21H26Cl2N4O2

Molecular Weight: 437.36

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	RMC-4550 is an effective and allosteric inhibitor of SHP2 (IC50: 0.583 nM).
Targets(IC50)	Phosphatase
In vitro	RMC-4550 stabilizes the auto-inhibited conformation of wild-type SHP2 enzyme, with a mode of inhibition similar to SHP099. RMC-4550 inhibits the activity of full-length wild-type SHP2 enzyme activated by a di-phosphotyrosine peptide but lacks activity against the free catalytic domain of SHP2 [1].
In vivo	RMC-4550 has moderate to high bioavailability and has a half-life amenable for once daily oral administration. In the EGFR-driven KYSE-520 human esophageal cancer xenograft model, RMC-4550 has a dose dependent efficacy consistent with target modulation, assessed by phospho-ERK inhibition in tumors. RMC-4550 is well tolerated at doses that achieved maximal and sustained efficacy in this model[2].

Solubility Information

Solubility	DMSO: 28 mg/mL (64.02 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 (11.43 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	2.2864 mL	11.4322 mL	22.8645 mL
5 mM	0.4573 mL	2.2864 mL	4.5729 mL
10 mM	0.2286 mL	1.1432 mL	2.2864 mL
50 mM	0.0457 mL	0.2286 mL	0.4573 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

Nichols RJ, et al. RAS nucleotide cycling underlies the SHP2 phosphatase dependence of mutant BRAF-, NF1- and RAS-driven cancers. Nat Cell Biol. 2018 Sep;20(9):1064-1073.
lena S. Koltun, Naing Aay et al. Abstract 4878: RMC-4550, an allosteric inhibitor of SHP2: Synthesis, structure, and anti-tumor activity. Experimental and Molecular Therapeutics
AM2018-4878 Published July 2018