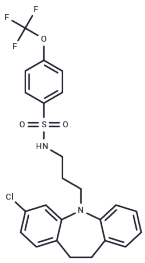
Data Sheet (Cat.No.T12777)

RTC-5

Chemical Properties



CAS No. : 1423077-49-9

Formula: C24H22ClF3N2O3S

Molecular Weight: 510.96

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	RTC-5 (TRC-382) is a phenothiazine compound that has been specifically enhanced for its potent anti-cancer properties. It exhibits considerable effectiveness against an EGFR-driven cancer xenograft model. The mechanism behind its efficacy can be attributed to the simultaneous inhibition of PI3K-AKT and RAS-ERK signaling pathways.
Targets(IC50)	EGFR
In vitro	H1650 lung adenocarcinoma cell growth inhibited by RTC-5 (0-40 μM; 48 hours) (GI50 of 12.6μM). RTC-5 (20-40 μM; 24 hours) negatively regulates PI3K-AKT and RAS-ERK pathways by decreasing phospho-AKT and phospho-ERK levels expression[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (97.86 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: 1 mg/mL (1.96 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	1.9571 mL	9.7855 mL	19.571 mL
5 mM	0.3914 mL	1.9571 mL	3.9142 mL
10 mM	0.1957 mL	0.9786 mL	1.9571 mL
50 mM	0.0391 mL	0.1957 mL	0.3914 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

Kastrinsky DB, et al. Reengineered tricyclic anti-cancer agents. Bioorg Med Chem. 2015 Oct 1;23(19):6528-34.