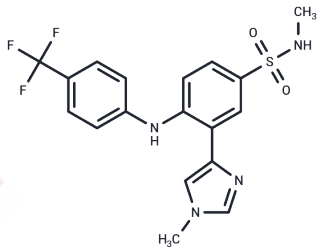
Data Sheet (Cat.No.T62077)

TargetMol

VT103

Chemical Properties



CAS No. : 2290608-13-6

Formula: C18H17F3N4O2S

Molecular Weight: 410.41

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	VT103 is an orally active and selective inhibitor of TEAD1 protein palmitoylation and is an analog of VT101. VT103 has potential antitumor activity by inhibiting YAP/TAZ-TEAD-promoted gene transcriptionment, blocking TEAD auto-palmitoylation, and blocking the interaction between YAP/TAZ and TEAD.VT103 can be used in the study of HER2-positive breast cancer, prostate cancer, and triple-negative breast cancer.
Targets(IC50)	YAP
In vitro	VT103 (3 mmol/L; 4 or 24 h; NF2-deficient NCI-H226 cells) selectively disrupts YAP–TEAD1 interaction.[1] VT103 (3 μM; HEK293T cells) appeared to be TEAD1-selective, as it does not block palmitoylation of TEAD2, TEAD3, or TEAD4.[1] VT103 results in the disappearance of palmitoylated TEAD1 with a concomitant increase in unpalmitoylated TEAD1. VT103 shows an IC50 of 1.02 nM in the YAP reporter assay.[1]
In vivo	VT103 (0.3~10 mg/kg; p.o.; once daily; NCI-H226-tumor-bearing mice) inhibits tumor growth, with efficacy observed at 0.3 mg/kg[1]. Pharmacokinetics of VT103 in mice.[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (121.83 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (6.09 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	2.4366 mL	12.1829 mL	24.3659 mL
5 mM	0.4873 mL	2.4366 mL	4.8732 mL
10 mM	0.2437 mL	1.2183 mL	2.4366 mL
50 mM	0.0487 mL	0.2437 mL	0.4873 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

Tang TT, et al. Small Molecule Inhibitors of TEAD Auto-palmitoylation Selectively Inhibit Proliferation and Tumor Growth of NF2-deficient Mesothelioma. Mol Cancer Ther. 2021 Jun;20(6):986-998.
Zhang S, Tan Y Q, Zhang X, et al.TFF3 drives Hippo dependent EGFR-TKI resistance in lung adenocarcinoma. Oncogene.2024: 1-16.