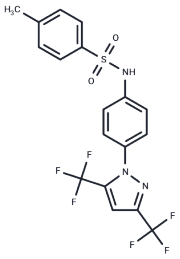
Data Sheet (Cat.No.T16686)

TargetMol

Pyr10

Chemical Properties



CAS No. : 1315323-00-2

Formula: C18H13F6N3O2S

Molecular Weight: 449.37

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	Pyr10 is a pyrazole derivative and a selective TRP cation 3 inhibitor that distinguishes between receptor-operated TRPC3 and native stromal interaction molecule 1 (STIM1) /Orai1 channels. Pyr10 inhibits Ca2+ influx in carbachol-stimulated TRPC3-transfected HEK293 cells (IC50: 0.72 μM) and has an IC50 of 13.08 μM for store-operated Ca2+ entry in BRL-2H3 cells.
Targets(IC50)	TRP/TRPV Channel
In vitro	The novel pyrazole Pyr10 displayed substantial selectivity for TRPC3-mediated responses (18-fold) and the selective block of TRPC3 channels by Pyr10 barely affected mast cell activation[1].
In vivo	Pyr10 blunted ventricular CF activation and MF in l-NAME hypertensive mice.?Finally, TRPC3 was present in human ventricular CFs and upregulated in MF, whereas pharmacological modulation of TRPC3-NFATc3 decreased proliferation and collagen secretion.?TRPC3-NFATc3 signaling is modulated by P.E. and critically regulates ventricular CF phenotype and MF.?These findings strongly argue for P.E., through TRPC3 targeting, as potential and interesting therapeutics for MF management[2].

Solubility Information

Solubility	DMSO: 95 mg/mL (211.41 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: 3.3 mg/mL (7.34 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	2.2253 mL	11.1267 mL	22.2534 mL
5 mM	0.4451 mL	2.2253 mL	4.4507 mL
10 mM	0.2225 mL	1.1127 mL	2.2253 mL
50 mM	0.0445 mL	0.2225 mL	0.4451 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

Schleifer H, et al. Novel pyrazole compounds for pharmacological discrimination between receptor-operated and store-operated Ca(2+) entry pathways. Br J Pharmacol. 2012 Dec;167(8):1712-1722.
Saliba Y, et al. Transient Receptor Potential Canonical 3 and Nuclear Factor of Activated T Cells C3 Signaling Pathway Critically Regulates Myocardial Fibrosis. Antioxid Redox Signal. 2019 Jun 1;30(16):1851-1879.