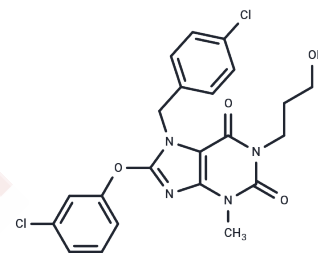


HC-070

Chemical Properties

CAS No. : 1628291-95-1
 Formula: C₂₂H₂₀Cl₂N₄O₄
 Molecular Weight: 475.32
 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 | HC-070 is a TRPC5 and TRPC4 antagonist (IC ₅₀ = 9.3 nM and 46 nM). |
| Targets(IC ₅₀) | TRP/TRPV Channel |
| In vitro | HC-070 inhibits hTRPC5 currents activated via muscarinic type 1 (IC ₅₀ = 2.0 nM) and suppresses hTRPC4 currents via muscarinic type 2 (IC ₅₀ = 0.49 nM). In whole-cell manual patch clamp, HC-070 inhibits lanthanum-activated hTRPC5-, mTRPC5-, rTRPC5-mediated currents (IC ₅₀ s of 0.52 nM, 0.55 nM, and 0.32 nM). In the amygdala slices, HC-070 (20 nM) decreases CCK-4-evoked neuronal activity. HC-070 weakly inhibits TRPC3 (IC ₅₀ = 1 μM) and blocks M2R-activated human TRPC1/TRPC4 channels (IC ₅₀ = 1.3 nM) and La ³⁺ - and M1R-activated human TRPC1/5 channels (IC ₅₀ = 1.4 nM and 4.4 nM)[1]. |
| In vivo | HC-070 (1 mg/kg) reduces the increased capacity for fear memory in mice subjected to chronic social stress on days 1-15. HC-070 (1 mg/kg, p.o.) affects mice with increased CCK-4-evoked anxiety. HC-070 (0.3-3 mg/kg, p.o.) causes a reduction of anxiety in a standard EPM. HC-070 (0.3-10 mg/kg, p.o.) reduces the time of immobility in a tail suspension test without impacting locomotor activity in mice. HC-070 (1-10 mg/kg, p.o.) reduces marble-burying behavior[1]. |

Solubility Information

| | |
|---------------------|--|
| Solubility | DMSO: 50 mg/mL (105.19 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: 2 mg/mL (4.21 mM),Sonication is recommended. <i>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.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|------------|------------|-------------|
| 1 mM | 2.1038 mL | 10.5192 mL | 21.0385 mL |
| 5 mM | 0.4208 mL | 2.1038 mL | 4.2077 mL |
| 10 mM | 0.2104 mL | 1.0519 mL | 2.1038 mL |
| 50 mM | 0.0421 mL | 0.2104 mL | 0.4208 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

Just S, et al. Treatment with HC-070, a potent inhibitor of TRPC4 and TRPC5, leads to anxiolytic and antidepressant effects in mice. PLoS One. 2018 Jan 31;13(1):e0191225.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481