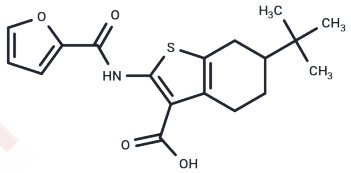
Data Sheet (Cat.No.T4330)

TargetMol

CaCCinh-A01

Chemical Properties



CAS No. : 407587-33-1

Formula: C18H21NO4S

Molecular Weight: 347.43

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	CaCCinh-A01 is an inhibitor of the calcium-activated chloride channel (CaCC, 10 μM) and TMEM16A (IC50: 2.1 μM).
Targets(IC50)	Chloride channel
In vitro	Tannic acid (100 μM) and CaCCinh-A01 (30 μM) effectively inhibit CaCC current following ATP stimulation[1]. CaCCinh-A01 (0.1/1/10 μM) reduces Calcium-dependent chloride current (38±14, 66±10, and 91±1%). ATP-induced short-circuits currents are reduced by 38±7 and 78±3% at 10 and 30 μM CaCCinh-A01, respectively.
Cell Research	Each well of a 96-well plate is washed three times with PBS (200 μL/wash), leaving 50 μL of PBS. Test compounds (including CaCCinh-A01) (0.5 μL) are added to each well at 25 μM final concentration. After 10 min, 96-well plates are transferred to a plate reader for fluorescence assay. Each well is assayed individually for TMEM16A-mediated I- influx by recording fluorescence continuously (400 ms/point) for 2 s (baseline), then 50 μL of a 140 mM I-solution containing 200 μM ATP is added.

Solubility Information

Solubility	DMSO: 250 mg/mL (719.57 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: 10 mg/mL (28.78 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (28.78 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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	2.8783 mL	14.3914 mL	28.7828 mL
5 mM	0.5757 mL	2.8783 mL	5.7566 mL
10 mM	0.2878 mL	1.4391 mL	2.8783 mL
50 mM	0.0576 mL	0.2878 mL	0.5757 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

Namkung W,etal.TMEM16A inhibitors reveal TMEM16A as a minor component of calcium-activated chloridechannel conductance in airway and intestinal epithelial cells. J Biol Chem. 2011 Jan 21;286(3):2365-74.
De La Fuente R, et al. Small-molecule screen identifies inhibitors of a human intestinal calcium-activated chloridechannel. Mol Pharmacol. 2008 Mar;73(3):758-68.