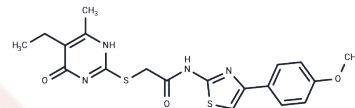


T16Ainh-A01

Chemical Properties

CAS No. :	552309-42-9
Formula:	C ₁₉ H ₂₀ N ₄ O ₃ S ₂
Molecular Weight:	416.52
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	T16Ainh-A01 is a potent inhibitor of TMEM16A Chloride channel, inhibiting TMEM16A-mediated chloride currents (IC ₅₀ of 1 μM), and functions as a calcium-activated chloride channel (CaCC).
Targets(IC ₅₀)	Chloride channel
In vitro	T16Ainh-A01 (0.3-30 μM) can significantly reduce the inward and outward components of I _{ClCa} and inhibit I _{ClCa} in RUICC without significantly affecting L-type Ca ²⁺ current[1]. T16Ainh-A01 (10 μM) inhibits nearly completely TMEM16A chloride current (induced by 275 nM free calcium in the pipette) at all voltages, indicating a voltage-independent block mechanism[2].

Solubility Information

Solubility	H ₂ O: Insoluble DMF: 10 mg/mL (24.01 mM), Sonication is recommended. DMSO: 83.33 mg/mL (200.06 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4008 mL	12.0042 mL	24.0085 mL
5 mM	0.4802 mL	2.4008 mL	4.8017 mL
10 mM	0.2401 mL	1.2004 mL	2.4008 mL
50 mM	0.048 mL	0.2401 mL	0.4802 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

Fedigan S, et al. Effects of new-generation TMEM16A inhibitors on calcium-activated chloride currents in rabbit urethral interstitial cells of Cajal. *Pflugers Arch.* 2017 Nov;469(11):1443-1455.

Shi S, Ma B, Sun F, et al. Zafirlukast inhibits the growth of lung adenocarcinoma via inhibiting TMEM16A channel activity. *Journal of Biological Chemistry.* 2022, 298(3).

Namkung W, et al. TMEM16A inhibitors reveal TMEM16A as a minor component of calcium-activated chloride channel conductance in airway and intestinal epithelial cells. *J Biol Chem.* 2011 Jan 21;286(3):2365-74.

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