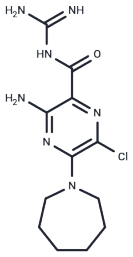
Data Sheet (Cat.No.T4699)

TargetMol

5-(N,N-Hexamethylene)-amiloride

Chemical Properties



CAS No. : 1428-95-1

Formula: C12H18ClN7O

Molecular Weight: 311.77

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	5-(N,N-Hexamethylene)-amiloride (5-HMA) is an amiloride derivative that inhibits TRPA1-mediated calcium signaling (IC50: 35 μM). It functions as an inhibitor of the Na+/H+ exchanger (NHE) with Ki values ranging from 0.013 to 2.4 μM for various NHE isoforms. Additionally, 5-HMA blocks ASIC3 channels by 51% at 20 μM.
Targets(IC50)	Apoptosis,HIV Protease,P2X Receptor,Sodium Channel,TRP/TRPV Channel

Solubility Information

Solubility	DMSO: 10 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: 1 mg/mL (3.21 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	3.2075 mL	16.0375 mL	32.0749 mL
5 mM	0.6415 mL	3.2075 mL	6.415 mL
10 mM	0.3207 mL	1.6037 mL	3.2075 mL
50 mM	0.0641 mL	0.3207 mL	0.6415 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

Banke T G . The dilated TRPA1 channel pore state is blocked by amiloride and analogues.[J]. Brain Research, 2011, 1381(1381):21-30.

Masereel B, et al. An overview of inhibitors of Na(+)/H(+) exchanger.[J]. Eur J Med Chem. 2003 Jun;38(6):547-54.

Amidine derived inhibitors of acid-sensing ion channel-3 (ASIC3)[J]. Bioorg Med Chem Lett. 2009 May 1;19(9):2514-8.

Chessell I P, Michel A D, Humphrey P P. Effects of antagonists at the human recombinant P2X7 receptor.[J]. Br J Pharmacol. 1998 Jul;124(6):1314-20.