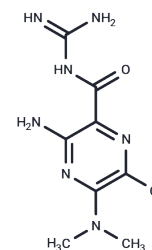


Dimethylamiloride

Chemical Properties

CAS No. :	1214-79-5
Formula:	C ₈ H ₁₂ ClN ₇ O
Molecular Weight:	257.68
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	Dimethylamiloride hydrochloride selectively inhibits Na ⁺ /H ⁺ exchangers located in cellular membranes, leading to intracellular H ⁺ retention and a reduction in intracellular pH. Dimethylamiloride hydrochloride additionally blocks TRPA1 ion channels with an IC ₅₀ of 80 μM, making it a valuable pharmacological tool for studying ion transport, pH homeostasis, sensory signaling, and inflammatory pain mechanisms.
Targets(IC ₅₀)	Sodium Channel
In vivo	To assess cardioprotective potential, isolated perfused rat hearts were subjected to an ischemia-reperfusion protocol. The tissue was pretreated with Dimethylamiloride at concentrations ranging from 5 to 20 μM prior to the ischemic event. This pretreatment regimen significantly improved the functional recovery of the heart upon reperfusion and reduced the release of creatine kinase from the tissue [2].

Solubility Information

Solubility	DMSO: 80 mg/mL (310.46 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	3.8808 mL	19.4039 mL	38.8078 mL
5 mM	0.7762 mL	3.8808 mL	7.7616 mL
10 mM	0.3881 mL	1.9404 mL	3.8808 mL
50 mM	0.0776 mL	0.3881 mL	0.7762 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

Vilella S, et al. Angiotensin II stimulation of the basolateral located Na⁺/H⁺ antiporter in eel (*Anguilla anguilla*) enterocytes. *J Mol Endocrinol*. 1996 Feb;16(1):57-62.

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