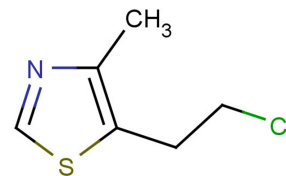


Clomethiazole

Chemical Properties

CAS No.:	533-45-9
Formula:	C ₆ H ₈ ClNS
Molecular Weight:	161.65
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Chlormethiazole is an orally active GABAA agonist. It also has the potential for treating convulsive status epilepticus. Chlormethiazole inhibits cytochrome P450 isoforms: CYP2A6 and CYP2E1 in human liver microsomes.
Targets(IC ₅₀)	Others: None
In vitro	Clomethiazole inhibits cytochrome P450 isoforms, CYP2A6 and CYP2E1 (IC ₅₀ : 24 μM and 42 μM), in human liver microsomes. But all other isoforms exhibiting values > 300 μM [2]. Clomethiazole (1 mM), in the absence of GABA, to α1/β1/γ2 or α1/β2/γ2 subunit-containing cells produced large whole-cell currents. Clomethiazole activates GABAA currents in α1/β1/γ2- and α1/β2/γ2-containing cells (EC ₅₀ : 0.3 and 1.5 mM). Clomethiazole (30 μM) at low concentration also potentiates the action of GABA in both cell types, equivalent to a 3-fold increase in potency and up to the 1.8-fold increase in maximal current [1].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.186 mL	30.931 mL	61.862 mL
5 mM	1.237 mL	6.186 mL	12.372 mL
10 mM	0.619 mL	3.093 mL	6.186 mL
50 mM	0.124 mL	0.619 mL	1.237 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Nelson RM, et al. Electrophysiological actions of gamma-aminobutyric acid and clomethiazole on recombinant GABA(A) receptors. *Eur J Pharmacol.* 2002 Oct 11;452(3):255-62.
2. Stresser DM, et al. Selective Time- and NADPH-Dependent Inhibition of Human CYP2E1 by Clomethiazole. *Drug Metab Dispos.* 2016 Aug;44(8):1424-30

Inhibitors · Natural Compounds · Compound Libraries

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