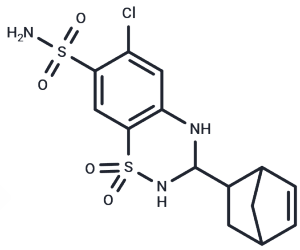
Data Sheet (Cat.No.T4573)

TargetMol

Cyclothiazide

Chemical Properties



CAS No. : 2259-96-3

Formula: C14H16ClN3O4S2

Molecular Weight: 389.88

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	Cyclothiazide is a benzothiadiazide that acts as a potentiator of AMPA receptorsthat potently inhibits AMPA receptor desensitization, positively modulating its response to glutamic acid (EC50 = 3.8 M).
Targets(IC50)	GABA Receptor,GluR,iGluR

Solubility Information

Solubility	Ethanol: 25 mM,Sonication is recommended. DMSO: 127.5 mg/mL (327.02 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5649 mL	12.8245 mL	25.6489 mL
5 mM	0.513 mL	2.5649 mL	5.1298 mL
10 mM	0.2565 mL	1.2824 mL	2.5649 mL
50 mM	0.0513 mL	0.2565 mL	0.513 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

Kessler et al (2000) The norbornenyl moiety of cyclothiazide determines the preference for flip-flop variants of AMPA receptor subunits.Neurosci.Lett. 287 161.

Donevan and Rogawski (1998) Allosteric regulation of a-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid receptors by thiocyanate and cyclothiazide at a common modulatory site distinct from that of 2,3-benzodiazepines. Neuroscience 87 615.

Desai et al (1995) Cyclothiazide acts at a site on the α-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid receptor complex that does not recognise competitive or noncompetitive AMPA receptor antagonists. J.Pharmacol. Exp.Ther. 272 38.

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