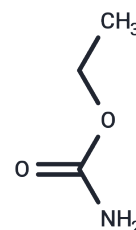


Urethane

Chemical Properties

CAS No. : 51-79-6
Formula: C₃H₇NO₂
Molecular Weight: 89.09
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Urethane (Ethylurethane) was an antineoplastic agent .Now is used for other medicinal purposes.
Targets(IC50)	Chloride channel,GABA Receptor,Antibacterial,GluR,NMDAR,AChR,Parasite
In vitro	urethane has a spectrum of action on ion channels, which is distinct from other anesthetics. It significantly potentiates the current responses of both GABAA and glycine receptors in a reversible and concentration-dependent manner. Conversely, urethane (10-300 mM) inhibits the responses of NMDA and AMPA receptors. Also, urethane potentiates the function of an nACh receptor and neuronal nicotinic acetylcholine, γ-aminobutyric acid A, and glycine receptors[3].
In vivo	Urethane, a carcinogenic substance, is favored for acute in vivo electrophysiological experiments because it induces long-lasting steady level of anesthesia with muscle relaxation and minimally affects the autonomic and cardiovascular systems[2]. Urethane affects both inhibitory and excitatory systems but the magnitude of the alterations is less than that produced by other more selective anesthetics[3]. But also, Urethane anesthesia is usually restricted to terminal (acute) experiments due to its potential long-term toxicity[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (617.35 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	11.2246 mL	56.123 mL	112.246 mL
5 mM	2.2449 mL	11.2246 mL	22.4492 mL
10 mM	1.1225 mL	5.6123 mL	11.2246 mL
50 mM	0.2245 mL	1.1225 mL	2.2449 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.

Reference

Barth AM, et al. J Neurosci. 31(3):851-860.

Cao J, Huang J, Gui S, et al. Preparation, Synergism, and Biocompatibility of in situ Liquid Crystals Loaded with

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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