

Choline chloride

Chemical Properties

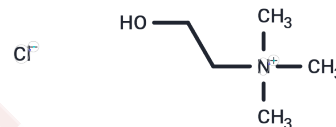
CAS No. : 67-48-1

Formula: C₅H₁₄ClNO

Molecular Weight: 139.63

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	Choline chloride (Biocoline) is a basic constituent of lecithin that is found in many plants and animal organs. It is important as a precursor of acetylcholine, as a methyl donor in various metabolic processes, and in lipid metabolism.
Targets(IC50)	Endogenous Metabolite,AChR
In vitro	After oral administration of Choline chloride, clinical symptoms include restlessness, accelerated respiration, reduced activity, convulsions, wrinkled fur, unsteady gait, and respiratory distress. Choline chloride exhibits low acute oral toxicity. Some animals exhibit diarrhea following ingestion of Choline chloride. In one study, the autopsy revealed pulmonary inflammation in 30% of the rats in the high-dose group.
In vivo	In cell culture, a deficiency of choline can lead to apoptosis, also known as programmed cell death.

Solubility Information

Solubility	Ethanol: 27 mg/mL (193.37 mM),Sonication is recommended. H ₂ O: 26 mg/mL (186.21 mM),Sonication is recommended. DMSO: 250 mg/mL (1790.45 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: 3.3 mg/mL (23.63 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.1618 mL	35.8089 mL	71.6178 mL
5 mM	1.4324 mL	7.1618 mL	14.3236 mL
10 mM	0.7162 mL	3.5809 mL	7.1618 mL
50 mM	0.1432 mL	0.7162 mL	1.4324 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

Lu XZ, et al. Br J Pharmacol. 2015 May 8

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