

Ammonium formate

Chemical Properties

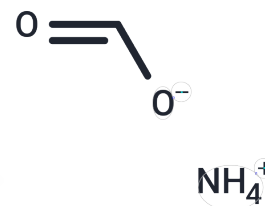
CAS No. : 540-69-2

Formula: CH5NO2

Molecular Weight: 63.06

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Ammonium formate (Formic acid ammonium salt) is the simplest carboxylic acid. Formate is an intermediate in normal metabolism. It is responsible for both metabolic acidosis and disrupting mitochondrial electron transport and energy production by inhibiting cytochrome oxidase activity, the terminal electron acceptor of the electron transport chain. Cell death from cytochrome oxidase inhibition by formate is believed to result partly from depletion of ATP, reducing energy concentrations so that essential cell functions cannot be maintained. Furthermore, inhibition of cytochrome oxidase by formate may also cause cell death by increased production of cytotoxic reactive oxygen species (ROS) secondary to the blockade of the electron transport chain.
Targets(IC50)	Others,Endogenous Metabolite

Solubility Information

Solubility	DMSO: 60 mg/mL (951.47 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: 5 mg/mL (79.29 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	15.8579 mL	79.2896 mL	158.5791 mL
5 mM	3.1716 mL	15.8579 mL	31.7158 mL
10 mM	1.5858 mL	7.929 mL	15.8579 mL
50 mM	0.3172 mL	1.5858 mL	3.1716 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

Hodson BA, et al. Novel affinity chromatographic system for the single-step purification of glycosaminoglycans from complex systems using volatile buffers. *J Chromatogr.* 1991 Apr 19;565(1-2):416-23.

He L, Shen L, Zhang J, et al. Comprehensive Investigation of Fluoroquinolone Residues in *Apis mellifera* and *Apis cerana* Honey and Potential Risks to Consumers: A Five-Year Study (2014–2018) in Zhejiang Province, China. *Toxics.* 2023, 11(9): 744.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481