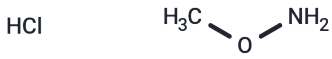
Data Sheet (Cat.No.T21320)

TargetMol

Methoxyamine HCl

Chemical Properties



CAS No. : 593-56-6

Formula: CH6ClNO

Molecular Weight: 83.51

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	Methoxyamine HCl (Methoxyamine) covalently binds to apurinic/apyrimidinic (AP) DNA damage sites and inhibits base excision repair (BER), which may result in an increase in DNA strand breaks and apoptosis. Methoxyamine is an orally bioavailable small molecule inhibitor with potential adjuvant activity. This agent may potentiate the anti-tumor activity of alkylating agents.
Targets(IC50)	Apoptosis,Others,DNA/RNA Synthesis

Solubility Information

Solubility	H2O: Soluble, DMSO: 55 mg/mL (658.6 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: 2 mg/mL (23.95 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	11.9746 mL	59.8731 mL	119.7461 mL
5 mM	2.3949 mL	11.9746 mL	23.9492 mL
10 mM	1.1975 mL	5.9873 mL	11.9746 mL
50 mM	0.2395 mL	1.1975 mL	2.3949 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

She MR, Guo KY, Niu XQ, Lu XX. [Effects of manumycin combined with methoxyamine on apoptosis in myeloid leukemia U937 cells]. Ai Zheng. 2008 Aug;27(8):835-9. Chinese. PubMed PMID: 18710617.
Yan L, Bulgar A, Miao Y, Mahajan V, Donze JR, Gerson SL, Liu L. Combined treatment with temozolomide and methoxyamine: blocking apurininc/pyrimidinic site repair coupled with targeting topoisomerase IIalpha. Clin Cancer Res. 2007 Mar 1;13(5):1532-9. PubMed PMID: 17332299.
Yan T, Seo Y, Schupp JE, Zeng X, Desai AB, Kinsella TJ. Methoxyamine potentiates iododeoxyuridine-induced radiosensitization by altering cell cycle kinetics and enhancing senescence. Mol Cancer Ther. 2006 Apr;5(4):893-902. PubMed PMID: 16648559.