

N-Nitroso-N-methylurea

Chemical Properties

CAS No. : 684-93-5

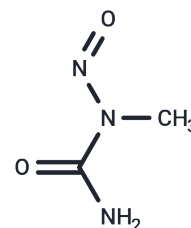
Formula: C₂H₅N₃O₂

Molecular Weight: 103.08

Keep away from direct sunlight

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

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|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | N-Nitroso-N-methylurea (NMU/MNU/NMH) is a nitrosourea compound with alkylating, carcinogenic, and mutagenic properties; as a direct-acting alkylating agent, it interacts with DNA and targets multiple animal organs to induce various cancers and degenerative diseases, and is commonly used to induce disease models such as gastric cancer and breast cancer in mice. |
| Targets(IC50) | DNA Alkylator/Crosslinker |

Solubility Information

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|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solubility | DMSO: 60 mg/mL (582.07 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 (19.4 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 | 9.7012 mL | 48.506 mL | 97.012 mL |
| 5 mM | 1.9402 mL | 9.7012 mL | 19.4024 mL |
| 10 mM | 0.9701 mL | 4.8506 mL | 9.7012 mL |
| 50 mM | 0.194 mL | 0.9701 mL | 1.9402 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

Yoshizawa K, et al. Caspase-3 inhibitor rescues N -methyl- N -nitrosourea-induced retinal degeneration in Sprague-Dawley rats. *Exp Eye Res.* 2000 Dec;71(6):629-35.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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