

Diethylamine NONOate diethylammonium salt

Chemical Properties

CAS No. : 372965-00-9

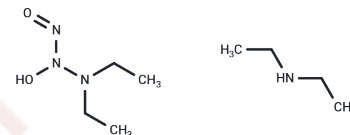
Formula: C₈H₂₂N₄O₂

Molecular Weight: 206.29

Storage: Keep away from moisture, Store at low temperature,
Store under nitrogen, The compound is unstable in
solution. Please use soon

Powder: -20°C for 3 years

Actual storage temperature shall be subject to the COA.



Biological Description

| | |
|---------------|---|
| Description | Diethylamine NONOate diethylammonium salt (DEA NONOate diethylamine) is a nitric oxide donor with antibacterial activity, a dispersant for preformed biofilms of <i>Pseudomonas aeruginosa</i> and inhibits the growth of <i>E. coli</i> . Diethylamine NONOate diethylammonium salt can be used for the preservation of isolated rat hearts. |
| Targets(IC50) | Antibacterial, Antibiotic |

Solubility Information

| | |
|---------------------|---|
| Solubility | H ₂ O: 80 mg/mL (387.8 mM), Sonication is recommended. (The compound is unstable in solution, please use soon.) DMSO: 165 mg/mL (799.84 mM), Sonication is recommended. (The compound is unstable in solution, please use soon.) (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+90% Saline: 10 mg/mL (48.48 mM), Solution. <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 | 4.8475 mL | 24.2377 mL | 48.4754 mL |
| 5 mM | 0.9695 mL | 4.8475 mL | 9.6951 mL |
| 10 mM | 0.4848 mL | 2.4238 mL | 4.8475 mL |
| 50 mM | 0.097 mL | 0.4848 mL | 0.9695 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

Du ZY, et al. The nitric oxide donor, diethylamine NONOate, enhances preservation of the donor rat heart. *J Heart Lung Transplant*. 1998 Nov;17(11):1113-20.

Li R, Li Y, Jiang K, et al. Lighting up arginine metabolism reveals its functional diversity in physiology and pathology. *Cell Metabolism*. 2024

Sysel AM, et al. Antimicrobial properties of diethylamine NONOate, a nitric oxide donor, against *Escherichia coli*: a pilot study. *J Antibiot (Tokyo)*. 2021 Apr;74(4):260-265.

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