

## Pentamidine

## Chemical Properties

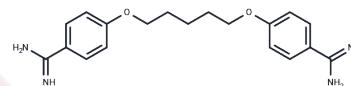
CAS No. : 100-33-4

Formula: C<sub>19</sub>H<sub>24</sub>N<sub>4</sub>O<sub>2</sub>

Molecular Weight: 340.42

Storage: Store at low temperature, Keep away from moisture  
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   | Pentamidine is an antifungal and antiprotozoal agent, interacting directly with the pathogen genome by binding to AT-rich regions of duplex DNA and the minor groove of DNA, thereby interfering with DNA replication. |
| Targets(IC50) | Antibacterial, Antibiotic, Parasite, Antifungal, Phosphatase   |
| In vitro      | Pentamidine is effective in therapy for the hemolymphatic stage of Gambian trypanosomiasis, antimony-resistant leishmaniasis, and Pneumocystis carinii pneumonia[1].   |

## Solubility Information

|            |   |
|------------|---|
| Solubility | DMSO: < 1 mg/mL (insoluble),<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.9375 mL | 14.6877 mL | 29.3755 mL |
| 5 mM  | 0.5875 mL | 2.9375 mL  | 5.8751 mL  |
| 10 mM | 0.2938 mL | 1.4688 mL  | 2.9375 mL  |
| 50 mM | 0.0588 mL | 0.2938 mL  | 0.5875 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

Michael S , Kron M A , Brown R B . Pentamidine: A Review[J]. Reviews of Infectious Diseases(5):625.  
Carton F , Chevalier Y , Nicoletti L , et al. Rationally designed hyaluronic acid-based nano-complexes for pentamidine delivery[J]. International Journal of Pharmaceutics, 2019, 568:118526.

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