

Certificate of Analysis

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Product Name: *N*¹,*N*¹²-Diethylspermine tetrahydrochloride

Catalog No.: 0500

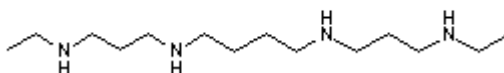
Batch No.: 1

CAS Number: 113812-15-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₃₄N₄·4HCl
Batch Molecular Weight: 404.3
Physical Appearance: White crystalline solid
Solubility: water to 100 mM
Storage: Store at RT
Batch Molecular Structure:

.4HCl



2. ANALYTICAL DATA

Melting Point: Greater than 300°C
¹H NMR: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Powerful antineoplastic agent in cultured cells and animal tumors (IC₅₀ = 0.2 μM in L1210 cells). Inhibitor of polyamine synthases. Suppressor of mitochondrial DNA synthesis.

Physical and Chemical Properties:

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Batch Molecular Weight: 404.3

Physical Appearance: White crystalline solid

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Storage: Store at RT

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Bergeron et al (1988) Synthetic polyamine analogues as antineoplastics. *J.Med.Chem.* **31** 1183. PMID: 3373487.

Porter et al (1990) Combined regulation of arginine and S-adenosylmethionine decarboxylases by spermine and the spermine analogue *N*¹,*N*¹²-bis(ethyl)spermine. *Biochem.J.* **268** 207. PMID: 2344358.

Vertino et al (1991) Selective cellular depletion of mitochondrial DNA by the polyamine analog *N*¹,*N*¹²-bis(ethyl)spermine and its relationship to polyamine structure and function. *Mol.Pharmacol.* **39** 487. PMID: 2017149.

Bergeron et al (2005) Synthesis and biological evaluation of aminopolyamines. *J.Med.Chem.* **48** 3099. PMID: 15857111.

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