

Product Name: Pyridostatin pentahydrochloride

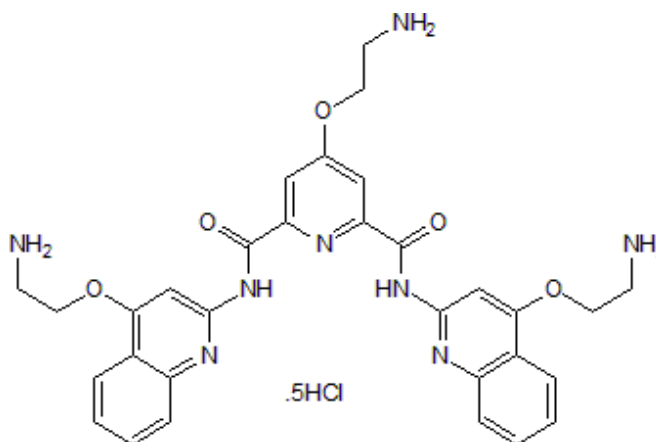
Catalog No.: 4763

Batch No.: 1

IUPAC Name: 4-(2-Aminoethoxy)*N*²,*N*⁶-bis[(4-(2-aminoethoxy)-2-quinoliny)]-2,6-pyridinecarboxamide pentahydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₁H₃₂N₈O₅·5HCl·3H₂O
Batch Molecular Weight: 832.99
Physical Appearance: Cream solid
Solubility: water to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >98.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	44.7	5.2	13.45	21.28
Found	44.74	5.49	13.27	21.39

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

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Description:

Binds and stabilizes G-quadruplexes, inducing DNA damage and cell cycle arrest ($K_d = 490$ nM); targets the proto-oncogene Src, reducing Src protein abundance and Src dependent motility in human breast cancer cells. Also targets telomeric G-quadruplexes, inducing telomerase dysfunction. Activates the DNA-dependent protein kinase catalytic subunit (DNA-PKcs).

Physical and Chemical Properties:

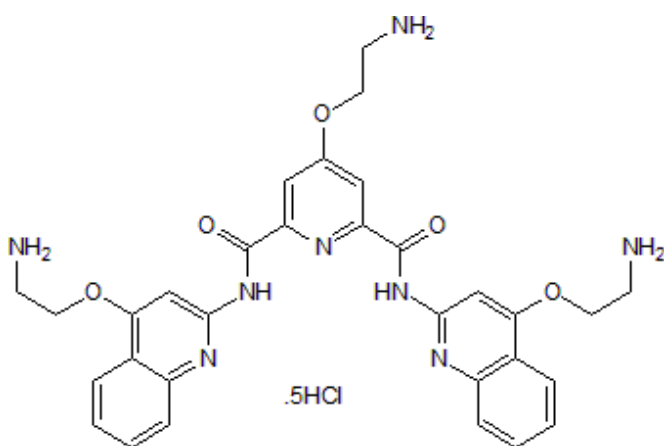
Batch Molecular Formula: $C_{31}H_{32}N_8O_5 \cdot 5HCl \cdot 3H_2O$

Batch Molecular Weight: 832.99

Physical Appearance: Cream solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate 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:

Müller *et al* (2010) Small-molecule-mediated G-quadruplex isolation from human cells. *Nat.Chem.* **2** 1095. PMID: 21107376.

Koirala *et al* (2011) A single-molecule platform for investigation of interactions between G-quadruplexes and small-molecule ligands. *Nat.Chem.* **3** 782. PMID: 21941250.

Rodriguez *et al* (2011) Small-molecule-induced DNA damage identifies alternative DNA structures in human genes. *Nat.Chem.Biol.* **8** 301. PMID: 22306580.

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