

Product Name: Propidium iodide

Catalog No.: 5135

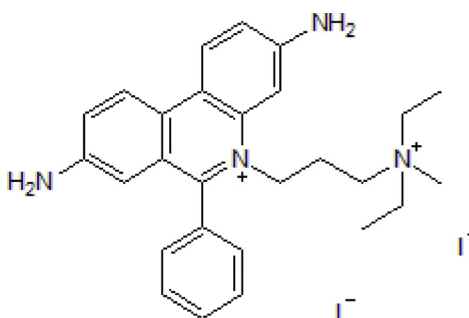
Batch No.: 2

CAS Number: 25535-16-4

IUPAC Name: 3,8-Diamino-5-[3-(diethylmethylammonio)propyl]-6-phenylphenanthridinium diiodide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₃₄I₂N₄·½H₂O
Batch Molecular Weight: 677.4
Physical Appearance: Red solid
Solubility: water to 5 mM with sonication
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.6% purity at 292 nm
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
UV Spectrum: Consistent with structure
λ_{max}: 495 nm (0.01M PBS pH 7.4)
λ_{em}: 635 nm (0.01M PBS pH 7.4)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	47.87	5.21	8.27
Found	47.13	4.98	8.12

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

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Description:

Key information: Propidium iodide (PI) is a widely used red-fluorescent DNA stain. It is membrane impermeant to live cells and so PI staining differentiates live and dead cells. PI can be used to stain nucleic acids in dead cells across different cell types, including mammalian cells, bacteria, and yeast. Application: flow cytometry, confocal microscopy, fluorescence microscopy. Used for: apoptosis detection by PI staining, nuclear counterstaining in multicolor fluorescent assays, cell death measuring in a mixed live-cell population by PI staining and flow cytometry. Properties and Photophysical Data: Propidium iodide fluorescence increas... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

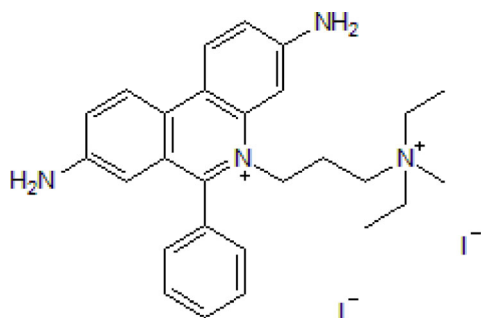
Batch Molecular Formula: C₂₇H₃₄I₂N₄·½H₂O

Batch Molecular Weight: 677.4

Physical Appearance: Red solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 5 mM with sonication

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Sonnemann et al (2014) p53-dependent and p53-independent anticancer effects of different histone deacetylase inhibitors. *Br.J.Cancer* **110** 656. PMID: 24281001.

Jeong et al (2013) SIRT4 protein suppresses tumor formation in genetic models of Myc-induced B cell lymphoma. *J.Biol.Chem.* **289** 4135. PMID: 24368766.

Yun et al (2013) Serine hydrolase inhibitors block necrotic cell death by preventing calcium overload of the mitochondria and permeability transition pore formation. *J.Biol.Chem.* **289** 1491. PMID: 24297180.

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