

Hello Bio, Inc.  
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500  
F. 609-228-4994

customercare-usa@hellobio.com



## DATASHEET

### Propidium Iodide

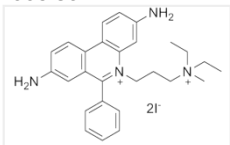
#### Product overview

<b>Name</b>	Propidium Iodide
<b>Cat No</b>	HB0820
<b>Description</b>	Red-fluorescent cell viability dye
<b>Alternative names</b>	PI
<b>Biological description</b>	<p>Propidium iodide (PI) is a widely used red-fluorescent intercalating agent that binds and labels nucleic acids.</p> <p>Propidium iodide is membrane impermeant and is therefore frequently used to selectively identify dead cells and is commonly used in flow cytometry to evaluate cell viability.</p> <p>Propidium iodide (PI) is often used in flow cytometry, fluorescent microscopy and confocal laser scanning microscopy applications.</p> <p>Once bound to the nucleic acids, its fluorescence is enhanced 20- to 30-fold. Wavelength Maxima: Excitation ~535nm, Emission ~617nm</p>
<b>Biological action</b>	Dyes & stains
<b>Purity</b>	>95%

#### Solubility & Handling

<b>Storage instructions</b>	+4 °C
<b>Solubility overview</b>	Soluble in water (5 mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

#### Chemical Data

<b>Chemical name</b>	2,7-Diamino-9-phenyl-10 (diethylaminopropyl)-phenanthridium iodide methiodide
<b>Molecular Weight</b>	668.39
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>27</sub> H <sub>34</sub> I <sub>2</sub> N <sub>4</sub>
<b>CAS Number</b>	25535-16-4
<b>PubChem identifier</b>	104981
<b>SMILES</b>	CC[N+](C)(CC)CCC[N+]=C2C=C(C=CC2=C3C=CC(=CC3=C1C4=CC=CC=C4)N)N.[I-].[I-]
<b>InChiKey</b>	XJMOSONTPMZWPB-UHFFFAOYSA-M
<b>MDL number</b>	MFCD00011921
<b>Appearance</b>	Purple solid
<b>Excitation</b>	535nm
<b>Emission</b>	617nm

#### References

### Analysis of apoptosis by propidium iodide staining and flow cytometry.

Riccardi C *et al* (2006) Nat Protoc 1(3)

**PubMedID** [17406435](#)

### The DNA intercalators ethidium bromide and propidium iodide also bind to core histones.

Banerjee A *et al* (2014) FEBS Open Bio 4

**PubMedID** [24649406](#)

### DNA staining for fluorescence and laser confocal microscopy.

Suzuki T *et al* (1997) J Histochem Cytochem 45(1)

**PubMedID** [9010468](#)

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