**For Research Use Only.**

**Not For Use In Diagnostic Procedures.**

**Propidium iodide**

**Cat.No.MG852**

**Size : 10mg / 100mg**

**≥95.0% (HPLC)**

**CAS :** 25535-16-4

**MDL number :** MFCD00011921

**Molecular weight :** 668.39

**Molecular formula :** C27H34N4•2I

**Synonyms :**

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

**Technical literature is available at:** [**www.mesgenbio.com**](http://www.mesgenbio.com)**. E-mail MesGen Technical Services if you have questions on use of this system:** **tech@mesgenbio.com**

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1. **Description**

Propidium iodide is a laboratory reagent for the fluorescent staining of nucleic acids. Useful for flow cytometry for staining apoptotic cells and nuclei. Because it is membrane impermeable the state of the cell determines the ability of propidium iodide from staining viable and apoptotic cells. Propidium iodide has been used in in combination with Hoechst fluorescent stain to observe cell viability via fluorescent microscopy. Propidium iodide is excitable at 536 nm and Emits at 617 nm (red).

1. **In Vitro**

Propidium Iodide is a cell-membrane impermeable dye with characteristic excitation maximum at 536 nm and emission maximum at 617 nm which intercalates with nucleic acids with a stoichiometry of one dye per 4-5 base pairs with little sequence preference. Propidium Iodide has evidenced of having no toxic effects on neurons, being today’s most common marker for membrane integrity and cell viability

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**Version 2.0**

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**Do not eat Store at +2 to +8° C & in the dark.**

when applied prior to fixation (pre-fixation Propidium Iodide staining method). The pre-fixation staining has been widely used for quantitative assessments of neuronal cell decline in models of acute neurodegeneration, visualized as intensely labeled PI+-pycnotic nuclei of degenerating neurons. Propidium Iodide cannot cross the membrane of live cells, making it useful to measure the percentage of apoptotic cells by flow-cytometric analysis. The flow cytometric data shows an excellent correlation with the results obtained with both electrophoretic and colorimetric methods. This new rapid, simple and reproducible method proves useful for assessing apoptosis of specific cell populations in heterogeneous tissues such as bone marrow, thymus and lymph nodes.

1. **Storage Condition**

To make a stock solution from the solid form, dissolve PI in deionized water at 1 mg/mL (1.5 mM) and store at +2 to +8°C, protected from light. When stored properly, solutions are stable for at least six months.

1. **Caution**

PI is a potential mutagen and should be handled with care. The dye must be disposed of safely and in accordance with applicable local regulations.

1. **Ordering Information**

http://www.mesgenbio.com/Products/Biochemicals/Fluorescent\_dye/Cell\_organelles/Nucle/218.html

Cat.No.MG852-10mg

Cat.No.MG852-100mg

1. **Regulatory Disclaimer**

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