

Propidium iodide

Cell Culture Tested

Product Code: TC252

Product Description :

Molecular weight: 668.39

Molecular formula: $C_{27}H_{34}I_2N_4$

CAS No.: 25535-16-4

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

Propidium iodide (PI) is a nucleic acid binding dye that intercalates into the major groove of double stranded DNA as well as RNA with very low base-preference and produces red fluorescence. Since PI also binds double stranded RNA, it is necessary to treat the cells with RNases for optimal DNA resolution. PI cannot cross an intact cell membrane but can cross membrane of damaged cells and stains intracellular nucleic acids and can be used for determining cell viability. In dual staining with Acridine orange, PI excludes Acridine orange competitively from the nuclei of damaged cells and makes it possible to distinguish and count all live and dead cells.

Applications:

- Flow cytometry analysis of cell cycle and apoptosis
- Cell viability determination
- Staining of whole cells and isolated nuclei
- As a nuclear counterstain for immunofluorescence studies on cells in culture where cell surface or intracellular antigens are localized with fluorochrome-conjugated antisera
- Differentiate between necrotic, apoptotic and normal cells

Directions :

Precautions:

Propidium iodide is a potent carcinogen. It can enter the body through inhalation, ingestion, and skin and eye contact. Use extreme caution while working with propidium iodide. Wear personal protective equipment (PPE) while handling the propidium iodide powder as well as solutions.

Quality Control:

Appearance

Red to red-brown powder

Solubility

Clear red solution at 10 mg in 10ml of water.

Water(by K.F.)

NMT 5.0%

Assay (HPLC/NT{Perchloric titration })

NLT 94.00%

Cell Culture Test

Passes

Storage and Shelf Life:

Store at 15 - 30°C away from bright light.

Shelf life is 48 months.

Avoid prolonged exposure of propidium iodide powder and solutions to light.

Use before expiry date given on the product label.

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ Publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.