TECHNICAL DATA SHEET

Propidium Iodide

Catalog Number: 13-6990

PRODUCT INFORMATION

Contents: Propidium Iodide

Excitation Laser Blue (488 nm), Green (532 nm), Yellow-Green (561 nm)

Emission (nm): 535 - 617

Formulation: 10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, pH 7.2

Storage Conditions: 2-8°C protected from light

Use by: 12 months from date of receipt

DESCRIPTION

Propidium Iodide (PI) is a membrane-impermeant DNA binding dye that cannot penetrate viable cells. PI rapidly enters cells with compromised membranes and intercalates between base pairs allowing exclusion of non-viable cells from analysis of flow cytometry data. PI has a broad emission spectrum from 535-617 nm and can be detected in either FL2 or FL3 detectors. When used with Annexin V FITC, it is recommended to analyze PI in FL2.

PREPARATION & STORAGE

Propidium Iodide is provided in solution and should be stored at 2-8°C and protected from light. Do not freeze. CAUTION: Propidium Iodide is a potential carcinogen. Protect skin and eyes by wearing suitable protective clothing, gloves and eye/face protection.

APPLICATION NOTES

Propidium Iodide is useful as a viability probe for exclusion of nonviable cells based on light scatter and fluorescence properties. It is recommended to use 10 uL (0.5 ug) of Propidium Iodide solution per sample.

NOTE: Please choose the appropriate format for each application. Citations are provided as a convenience to you; please consult Materials and Methods sections for additional details about the use of any product in these publications.

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Propidium Iodide or 7-AAD Viability Staining Protocol

Propidium Iodide (PI) Cat. No. 13-6990
7-AAD Cat. No. 13-6993

Note: Propidium Iodide and 7-AAD are not compatible with intracellular staining protocols that require fixation and permeabilization. For these applications we recommend use of Tonbo Biosciences Ghost Dyes.

Caution: Propidium Iodide and 7-AAD are potential carcinogens. Protect skin and eyes by wearing suitable protective clothing, gloves and eye/face protection.

Other Materials Required

- Flow Cytometry Staining Buffer (Stain Buffer) (1X PBS with 2% FBS, 0.09% Na-Azide)

Experimental Procedure

1. Stain cell surface antigen(s).
2. Wash cells in Stain Buffer. Centrifuge at 300-400 x *g* for 5 minutes at room temperature and discard supernatant.
3. Resuspend in appropriate volume of Stain Buffer for acquisition, typically 0.5-1 mL.
4. **For PI:** add 10 uL (0.5 ug) to each sample.
   OR
5. **For 7-AAD:** add 5 uL (0.25 ug) to each sample.
6. Incubate samples for 5-10 minutes in the dark prior to data acquisition.
7. Do not wash the cells after addition of Propidium Iodide or 7-AAD.
8. Analyze cells as soon as possible after the incubation period as prolonged exposure to Propidium Iodide or 7-AAD can have adverse effects on cell viability.

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