Product Information

7-AAD (7-Aminoactinomycin D)

Catalog Number: A4075

Product Size:1 mg

Parameters

Appearance: Red solid soluble in DMSO and water

Ex/Em: 546/647 nm

CAS No.: 7240-37-1

Molecular Weight: 1270.43

Storage

Store at -20°C and protect from light. Expiration date marked on the outer packing.

Description

7-AAD is a fluorescent DNA binding dye that is membrane impermeant and therefore generally excluded from viable cells. The dye is excluded by live cells and early apoptotic cells, but stains necrotic and late apoptotic cells with compromised membrane integrity. Widely used in flow cytometry detection.

7-AAD has similar fluorescence characteristics as PI and can be excited by a 488nm laser. 7-AAD has a narrower emission spectrum than PI and a longer emission wavelength, so it has less interference with other detection channels. 7-AAD is the best alternative to PI in multicolor fluorescence analysis. It can be used in combination with a variety of fluorescent dyes excited by 488 nm, such as FITC, PE.

Protocol

Note: You may need to optimize the staining procedure for each particular cell type by varying the dye concentration, staining volume, labeling time, or wash steps.

1. Preparation of stock solution: The solid dye may be dissolved in DMSO to make concentrated stock solutions to 1-10 mM.

Note: The storage solution can be stably stored at -20°C for 6 months.

2. Choose the appropriate procedure to fix the cells. 7-AAD staining is usually performed after other staining is completed, and only staining dead cells.

3. Collect the cells by centrifugation and resuspend the cells in a suitable buffer or medium (pH = 7.4).

Note: Adherent cells can be stained in situ on coverslips or plates.

4. Add an appropriate amount of 7-AAD staining solution. The recommended working concentration of the dye is 0.5-5 μM, and the incubation time is 15-60 min.

Note: It is recommended to set up a dye concentration gradient test to find the optimal dyeing concentration.

5. Detection by flow cytometry or fluorescence microscope.

Notes

1. There are quenching problems with fluorescent dyes. Please avoid light to slow down the fluorescence quenching.

2. For your safety and health, please wear lab coats and disposable gloves.

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