

Hoechst 34580 tetrahydrochloride

Cat: IH1760

Storage: Powder: 2-8°C, 2 years; Insolvent: -20°C, 6 months; -80°C, 1 year (protect from light)

Introduction

Hoechst 34580 is a labelled dye of Hoechst series. Hoechst series are living cell nuclear labeling dyes. Hoechst binds to nucleic acids by binding to small grooves in the double-stranded DNA. Hoechst tends to bind to A/T-rich DNA strands. At the same time, A/T-rich double-stranded DNA significantly enhanced the fluorescence intensity. Hoechst can pass through the cell membrane, bind to live cells or fix cells.

Hoechst 34580 is a cell-permeable fluorescent dye for DNA and nuclear staining.

Parameter

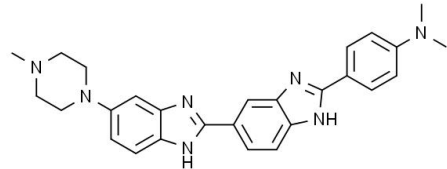
CAS: 23555-00-2 (free base)

Molecular Formula: C₂₇H₂₉N₇ (free base)

Molecular Weight: 451.57 (free base)

Appearance: Solid

Solubility: Soluble in DMSO (Need ultrasonic)



Protocols (only for reference)

Preparation of storage solution

A stock solution of 1 mg/mL was prepared with DMSO. For example, 1 mg Hoechst 34580 powder was dissolved in 1 mL DMSO

Note: Unused storage solution is recommended to be stored at -20°C to avoid repeated freezing and thawing.

Preparation of working fluid

The storage solution was diluted with appropriate buffer (such as serum-free medium or PBS, etc.) to prepare a Hoechst working solution of 10 µg/mL.

Note :

- The final concentration of the working solution is recommended to be optimized according to different cell lines and experimental systems.
- When it is found that it is difficult to dissolve, appropriate ultrasonic treatment can be used to promote dissolution.
- Please adjust the concentration of the working fluid according to the actual situation, and use it now.

Coloring

For fixed cells or tissues

- For cell or tissue samples, after fixation, appropriate washing to remove the fixative. Subsequently, if immunofluorescence staining is required, immunofluorescence staining is performed first, and then Hoechst 34580 staining is performed according to the subsequent

steps. If no other staining is required, subsequent Hoechst 34580 staining is performed directly.

2. For adherent cells or tissue sections, a small amount of Hoechst 34580 working solution was added to cover the sample. For suspension cells, at least 3 times the volume of the working solution of the sample to be stained was added and mixed. Store at room temperature for 3-5 min.
3. Hoechst 34580 staining solution was removed and washed 2-3 times with TBST, PBS or normal saline for 3-5 min each time.
4. Observe directly under a fluorescence microscope or under a fluorescence microscope after sealing. When apoptosis occurs, the nucleus of apoptotic cells will be seen to be densely stained, or fragmented and densely stained.

For living cells or tissues

1. Adding an appropriate amount of Hoechst 34580 working fluid, the sample to be dyed must be fully covered. Usually, 1 mL working fluid is added to one hole of the six-hole plate, and 100 μ L working fluid is added to one hole of the 96-hole plate.
2. Culture for 20-30 min at a temperature suitable for cell culture. The staining solution was discarded and washed with PBS or culture medium for 2-3 times to perform fluorescence detection.

Note

1. Fluorescent dyes all have quenching problems, please try to avoid light to slow down the fluorescence quenching.
2. For your safety and health, please wear experimental clothes and wear disposable gloves.
3. This product is for scientific research only. Do not use in medicine, clinical diagnosis or treatment, food and cosmetics. Do not store in ordinary residential areas.

Related Products

IH0060 Hoechst 33258

IH0070 Hoechst 33342

IH1750 Hoechst 34580

IH1760 Hoechst 34580 tetrahydrochloride

ID2250 DAPI dihydrochloride

IP5030 Propidium iodide