

Neutral Red Ethanol Staining Solution (0.1%)

Cat #: A-CSH309

Size: 100mL

Storage: Room temperature, avoid light (12 months)

Product Composition

Component	Size	Store at
Neutral red ethanol stain (0.1%)	100ml	10~30°C, and were protected from light

Product Description

Neutral red is a weakly alkaline pH indicator with a color range between pH 6.4 and 8.0 (changing from red to yellow).

In a neutral or slightly alkaline environment, living plant cells can absorb a large amount of neutral red and secrete it into vacuoles. Since vacuoles generally exhibit an acidic reaction, the neutral red that enters the vacuoles dissociates and releases a large amount of cations, resulting in a cherry red color. In this case, the cytoplasm and cell walls are usually not stained. In contrast, dead cells, due to cytoplasm denaturation and coagulation, cannot maintain cell fluids in the vacuoles. When stained with neutral red, they do not show vacuolar staining. Instead, the cations of neutral red combine with the cytoplasm and cell nuclei, which have certain negative charges, resulting in staining of the cytoplasm and cell nuclei.

Neutral red ethanol staining solution (0.1%) is a commonly used staining solution for tissue or cell staining, which can stain cell nuclei red. It is often used for staining hypertrophic cells.

Usage

I. Sample preparation

(A) For paraffin sections:

1. Deparaffinize in xylene for 5-10 minutes.
2. Repeat deparaffinization with fresh xylene for 5-10 minutes.
3. Rinse in absolute ethanol for 5 minutes.
4. Rinse in 90% ethanol for 2 minutes.
5. Rinse in 70% ethanol for 2 minutes.
6. Rinse in distilled water for 2 minutes.

(B) For frozen sections:

1. Rinse in distilled water for 2 minutes.

(C) For cultured cells:

1. Fix with 4% paraformaldehyde for at least 10 minutes.
2. Rinse with distilled water for 2 minutes.
3. Repeat rinsing with fresh distilled water for 2 minutes.

II. Neutral red staining

(A) For the prepared samples, stain with neutral red ethanol staining solution (0.1%).

(B) Rinse thoroughly with distilled water or tap water.

(C) Observe and take photographs.

Staining Results

nucleus	red
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Notes

1. If dehydration, clearing, and mounting are required, you will need to prepare xylene, neutral mounting medium, or other mounting agents. If the samples are paraffin sections, you will also need to prepare 70% and 90% ethanol, absolute ethanol, and xylene.
2. It is recommended to perform a preliminary experiment with 1-2 samples when using this reagent for the first time.
3. During neutral red staining, you can adjust the time based on the staining results and requirements.
4. For your safety and health, please wear a lab coat and disposable gloves while handling the reagent.

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.