

Iodine Solution (0.5%)

Cat #: A-CSH286

Size: 100mL

Storage: 2-8 °C, Avoid exposure to light (1 year)

Product Description

Component	Size	Store at
Solution of periodic acid (0.5%)	100ml	2-8 °C, Avoid exposure to light

Periodic acid (also known as meta-periodic acid) is a strong oxidizing agent that can oxidize the 1,2-glycol groups in carbohydrates and related substances, converting them into dialdehydes. The aldehydes can then react with Schiff reagent to form a purplish-red compound, resulting in a purple-red color. Therefore, periodic acid is commonly used in combination with Schiff reagent for glycogen staining. However, it is important to carefully select the concentration of periodic acid and the oxidation time, as excessive oxidation can affect other cellular components. The key is to control the oxidation process so that the glycol groups are oxidized to aldehyde groups without over-oxidation. Periodic acid solution is suitable for thinner tissue sections and is particularly useful for oxidizing cultured cells.

Usage

1. For routine fixation, 10% formalin is commonly used, followed by routine dehydration and embedding.
2. Paraffin-embedded sections should be deparaffinized in distilled water, while frozen sections can be directly placed in distilled water.
3. Rinse with tap water for 2-3 minutes, followed by two washes with distilled water.
4. Immerse the sections in the periodic acid solution and leave them at room temperature for 5-8 minutes, generally not exceeding 10 minutes. Proceed with the remaining steps according to specific experimental requirements.

Notes

1. Tissue sections should be thoroughly deparaffinized to ensure optimal staining results. For frozen sections, the staining time should be kept as short as possible.
2. The oxidation time with periodic acid should not be excessively long, and the optimal temperature during oxidation is between 18-22°C.
3. Store the solution in a closed container at 4°C, avoiding excessive exposure to sunlight and air. It is recommended to take it out 30 minutes prior to use and allow it to reach room temperature in a dark place.

Disclaimer

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