

Bouin'S Fixative (Bouin's fluid/Solution)

Cat #: A-CSH480

Size: 100mL, 500mL, 1000mL

Storage: Room temperature (24 months)

Product Description

The purpose of fixation is to preserve the original morphological structure of cells and tissues. Fixatives can prevent endogenous lysosomal enzymes from autolysis, inhibit the growth of bacteria and fungi. Fixatives induce changes in the internal structure of proteins through coagulation, formation of additive compounds, and inactivate enzymes. Fixative solutions are mainly classified into aldehyde fixatives, mercuric fixatives, alcohol fixatives, oxidant fixatives, and picrate fixatives. The commonly used ones are formalin from the aldehyde group and ethanol from the alcohol group.

Bouin'S Fixative (Bouin's fluid/Solution), composed mainly of PA, formaldehyde, and acetic acid. PA can cause protein precipitation and tissue contraction without tissue hardening. When PA mixed with formaldehyde and acetic acid, the penetration speed is increased, resulting in uniform fixation. The tissue shows slight contraction, and the fine cellular structures are displayed clearly, making it an excellent fixative. Bouin'S Fixative has a mediating effect on staining techniques such as Masson's trichrome, enhancing the staining of connective tissues and muscle fibers. Tissues fixed with Bouin'S Fixative exhibit vibrant colors. This fixative may also soften the skin and tendons, facilitating the process of sectioning.

Procedure

1. Generally, fixation typically requires only 30-60 minutes. If the tissue block is large, the fixation time can be extended appropriately, but it should not exceed 24 hours.
2. After fixation with Bouin'S Fixative, the tissue can be rinsed briefly with running water or directly transferred to 70% ethanol for dehydration. During ethanol dehydration, most of the picric acid (PA) can be removed, leaving the tissue with a slight yellow color, which does not affect staining.

Notes

1. Bouin'S Fixative can cause certain harm to the human body. Please handle it with caution in a well-ventilated environment to avoid inhalation.
2. The thickness of the tissue samples varies, and therefore the fixation time differs. Proper selection of tissue samples is beneficial for the penetration of the fixative. The recommended thickness for routine biopsy samples is 2-4mm, generally not exceeding 6mm.
3. Sufficient volume of fixative is necessary. The volume ratio between the fixative and tissue blocks should be greater than 10:1. If the volume is not large enough, the fixative can be changed 1-3 times during the fixation process.
4. Temperature has a significant impact on fixation. Increasing the temperature can accelerate the fixation process, but the temperature should not be excessively high.
5. After removing fresh tissue, it should be promptly fixed. If immediate fixation is not possible, the tissue should be stored in physiological saline and sent for examination as soon as possible.

Disclaimer

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