
Sodium Sulfate Aqueous Solution (5%)

Cat. No.: S1520407 | Pack size: 500 mL | Storage: Room temperature

Overview

During tissue sectioning, when tissues contain bone or calcified foci, calcium-containing tissues are not suitable for direct paraffin embedding and sectioning. This is due to the density difference between calcium and paraffin, making it difficult to obtain intact sections. For calcium-containing tissues, fixation is preferably performed first, followed by decalcification, or the two processes can be carried out simultaneously. During decalcification, acidic substances break the cross-links between protein molecules in the tissue and release hydrophilic groups that can bind to water molecules, resulting in tissue swelling. After tissue decalcification, the acid in the tissue must be neutralized immediately to rapidly deacidify and neutralize the tissue, ensuring section quality and staining efficacy. Sodium Sulfate Aqueous Solution (5%) is a commonly used post-treatment solution for decalcified bone tissue, with overnight treatment.

Protocol (for reference only)

1. During bone tissue decalcification, the specimen thickness should not be excessive, generally approximately 5 mm.
2. Wash the decalcified tissue with distilled water 3 times, 20 minutes each time.
3. Transfer the tissue to a 5% aqueous sodium sulfate solution with a volume 20-30 times that of the tissue, and treat for 24 h.
4. Rinse the tissue with distilled water several times.

Precautions

1. Appropriate heating can accelerate the treatment process, and the temperature should generally not exceed 37-40 °C.
2. Water washing alone is not recommended, as it easily causes tissue swelling.
3. For your safety and health, please wear a laboratory coat and disposable gloves during operation.
4. This product is for research use only; strictly prohibited for other purposes.

Appendix

Ethanol treatment method: Treat with 70% ethanol, replace every 1 h, and repeat twice.

Specifications

Property	Value
Synonyms	Sodium sulfate solution
Specifications & Purity	BioReagent, 5% in deionized water
Stability And Storage	Store at room temperature long term (12 months).
Storage Conditions	Room temperature
Shipped In	Normal

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