10% EDTA Decalcification Solution

Cat. No: E-IR-R112 **Size: 100 mL/ 500 mL/ 1000 mL**

Cat.	Products	100 mL	500 mL	1000 mL	Storage
E-IR-R112	10% EDTA Decalcification Solution	100 mL	500 mL	500 mL×2	2~8°C

Introduction

There are many hard calcium tissue in pathological experiments. The density between calcium and paraffin in tissue are different, and tissue containing calcium can't be sliced directly. Bone tissue contains the most calcium and calcification may occur in other tissues forming calcified areas in the tissue, it needs to decalcify. Decalcification is an important step in making bone slices, especially the bone tissue to immunohistochemical stained.

EDTA can combine with calcium in the outer layer of hydroxyapatite crystal to form soluble non-ionic compounds, and promote the outward transfer of bound calcium in the inner layer of the crystal. With the continuity, the hydroxyapatite crystal is gradually melted, and it can play a chelating role when the pH is neutral. This method is characterized by long decalcification time, less damage to bone tissue, better preservation of enzyme activity (alkaline phosphatase) and cell antigenicity. The slices can be used for histochemical and immunohistochemical analysis.

Experimental Procedure

1. Cut the bone tissue to 0.5 cm × 0.3 cm × 0.2 cm pieces, wash with normal saline and put them into pre-cooled Tissue Fixation Solution (It is recommended to use Elabscience® E-IR-R113) immediately and fix at 4°C for 12 h~24 h.
2. Wash the bone pieces in 0.2 mol phosphate buffer.
3. Immerse the bone pieces into the EDTA Decalcification Solution, decalcify at room temperature, and check the decalcification every day until the bone pieces are completely decalcified.
   Tips: Replace the EDTA Decalcification Solution every 4~5 days. After 3 times of replacement, replace the new EDTA Decalcification Solution every day.
   Please analyze according to the specific experiment. Finish the decalcification when the needles can penetrate into the bone.
4. Wash the bone pieces with distilled water for 20 min.
5. Routine dehydration procedures and embedding and slicing.

Storage

Store at 2~8°C for 12 months.

Cautions

1. Sealed storage to prevent from pollution.
2. This product couldn't be used for clinical diagnosis or treatment, food or medicine, and can't be stored in residence.
3. For your safety and health, please wear the lab coat and disposable gloves before the experiments.

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