

Gordon-Sweets Silver Ammonia Solution

Cat #: A-CSH440

Size: 100mL

Storage: 2-8°C, avoid light (3 months)

Product Description

Reticular fibers are a type of fiber found in reticular connective tissue. They are produced by reticular cells and have a diameter ranging from 0.2 to 1.0µm. Reticular fibers are tough but lack elasticity. There are various staining methods for reticular fibers, but the principle is generally the same, with most using the ammoniacal silver impregnation method. The Gordon-Sweets staining method for reticular fibers utilizes the affinity of ammoniacal silver solution to be adsorbed by tissue and bind to tissue proteins. The solution is then reduced by formaldehyde to form black or brown-black metallic silver, which deposits within and on the tissue.

Frozen sections, cryosections, and paraffin sections can all be used for reticular fiber staining. Various fixatives can be used, although heavy metal mercury or osmium fixatives occasionally produce nonspecific silver background staining. This method is commonly used to differentiate the nature and origin of tumors, carcinoma vs. sarcoma, lymphosarcoma vs. reticulum cell sarcoma, hemangioendothelioma vs. angiosarcoma, osteoblastoma vs. osteosarcoma, meningioma vs. astrocytoma, malignant schwannoma, and early invasive carcinoma, etc .

Usage

1. Fix the tissue in 10% formalin fixative, perform routine dehydration and embedding. Cut sections with a thickness of 4µm and dewax to water using routine methods.
2. Perform oxidation, bleaching, and counterstaining.
3. Add Gordon-Sweets Silver Ammonia Solution and stain for 3 minutes.
4. Perform routine dehydration, clearing, and seal with neutral mounting medium.

Staining Results

Reticular fibers: Black

Collagen fibers: Yellow to yellow-brown

Cell nuclei: Brown to dark brown

Notes

1. Glassware must be soaked in detergent for 1 day, rinsed with tap water, and then rinsed twice with distilled water.
2. 10% formalin fixative is a suitable fixative and should not be replaced with mercury-containing fixatives such as Zenker's solution, as they may result in nonspecific precipitation on the slides.
3. Gordon-Sweets Silver Ammonia Solution is not very stable and is sensitive to light. It should be stored at 4°C and used at room temperature.
4. For your safety and health, please wear a lab coat and disposable gloves when operating.

Disclaimer

For your safety and health, please wear lab attire and disposable gloves while handling.