

Cartilage Staining Solution (Toluidine Blue Method)

Cat #: A-CSH384

Size: 100mL

Storage: Room temperature, avoid light (12 months)

Product Composition

Component	Size	Store at
Cartilage staining solution (toluidine blue method)	100ml	From 10 to 30°C, and were protected from light

Product Description

Toluidine Blue O is a commonly used synthetic dye that belongs to the quinoneimine dye class. Dyes in this class contain both amino and quinone-type benzene rings, which contribute to their coloration. The cations in Toluidine Blue O have staining properties and can bind to acidic substances in tissue cells, resulting in staining. Toluidine Blue O also contains two auxochrome groups that facilitate the ionization of the dye into salt forms, enhancing its staining power on tissues. This allows for the staining of cellular nuclei in tissue sections, giving them a blue color. Additionally, mast cell cytoplasm contains metachromatic substances such as heparin and histamine, which can exhibit a purplish-red metachromatic color when exposed to Toluidine Blue O. This staining is frequently used in the clinical examination of mast cells. The staining solution for cartilage (Toluidine Blue O method) is highly alkaline, which facilitates the staining of cartilage tissue.

Usage

1. Perform routine decalcification, embedding, and fixation.
2. Dewax the paraffin sections in xylene twice, 15 minutes each time.
3. Rinse the sections in a series of ethanol solutions for 1 minute each, followed by a 2-minute rinse in tap water.
4. Immerse the sections in the cartilage staining solution for 15-20 minutes. The staining time may vary depending on

the tissue type.

5. Rinse the sections in tap water for 2 minutes, then blot excess water with filter paper.
6. Differentiate in acetone until the cartilage cells appear clearly visible in a bluish-purple color.
7. Dehydrate the sections in a series of ethanol solutions, clear in xylene, and mount with neutral resin.

Staining Results

Of the cartilage and osteoblasts	hyacinthine
background	nattier blue

Notes

1. For tissues that are difficult to stain, the immersion time should be extended accordingly.
2. For your safety and health, please wear a lab coat and disposable gloves while performing the procedure.

Disclaimer

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