

## 软骨染色液(甲苯胺蓝法)

货号: G2543

规格: 100mL

保存: 室温, 避光保存, 有效期 1 年。

### 产品介绍:

甲苯胺蓝(Toluidine Blue O)是一种常用的人工合成染料, 属于醌亚胺染料类。这类染料主要含有胺基和醌型苯环两个发色团, 从而成色原显色。甲苯胺蓝中的阳离子能与组织细胞的酸性物质结合来进行染色。甲苯胺蓝不仅含有两个发色团, 还含有两个助色团, 能促使染料电离, 提高染色效率和染色强度。

可染细胞核使之呈蓝色; 软骨基质含硫酸软骨素、硫酸角质素等异色性物质遇到甲苯胺蓝可呈异染性紫红色。

### 操作步骤: (仅供参考)

1. 骨组织常规固定、脱钙、包埋, 切 3-5um 薄片。
2. 石蜡切片入二甲苯 2 次, 合计 20min, 系列乙醇各 3min。蒸馏水洗 2min。
3. 滴加软骨染色液(甲苯胺蓝法)染色 30min。根据组织大小、密度和类型, 可适当调整染色时间。
4. 蒸馏水洗 2min, 滤纸吸干水分。
5. 95%乙醇分化至软骨细胞呈紫蓝色清晰可见。无水乙醇脱水 2min。
6. 二甲苯透明, 中性树胶封固。

### 染色结果:

软骨基质、成骨细胞	紫红色
背景	淡蓝色

### 注意事项:

1. 第一次使用本试剂时建议先取 1-2 个样品做预实验。
2. 针对于大块组织、致密组织等较难着色组织的染色, 浸染于甲苯胺蓝染色液的时间应相应延长。
3. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。





## Toluidine Blue Cartilage Stain Solution

**Cat:** G2543

**Size:** 100mL

**Storage:** RT, avoid light, valid for 1 year.

### Introduction

Toluidine Blue O is a commonly used synthetic dye, which belongs to quinone imine dyes. This type of dye mainly contains two chromophores, the amine group and the quinone type benzene ring, thus forming the primary chromophore. Cations in toluidine blue can bind to acidic substances in tissue cells for staining. Toluidine blue not only contains two chromophores, but also two auxiliary chromophores, which can promote dye ionization, improve dyeing efficiency and strength.

Stain the nucleus to make it blue; Cartilage matrix contains heterochromatic substances such as chondroitin sulfate and keratin sulfate, which can turn heterochromatic purple red when encountering toluidine blue.

### Protocols (for reference only)

1. Regular fixation, decalcification, embedding of bone tissue, and cutting of 3-5  $\mu$  m thin slices.
2. Slice paraffin into xylene twice for a total of 20 min, and use series ethanol for 3 min each. Wash with distilled water for 2 min.
3. Add Toluidine Blue Cartilage Stain Solution staining for 30 min. The staining time can be adjusted appropriately based on the size, density, and type of tissue.
4. Wash with distilled water for 2 min and filter paper to absorb moisture.
5. 95% ethanol differentiated chondrocytes into a clear purple blue color.
6. Dehydrate anhydrous ethanol for 2 min. Transparent by xylene and seal with resinene.

### Result

Cartilage, Osteoblast	Purple Red
Background	Light Blue

### Note

1. When using this reagent for the first time, it is recommended to take 1-2 samples for pre experiment.
2. The staining time of Toluidine Blue Cartilage Stain Solution should be prolonged for the staining of bulk tissue, dense tissue.
3. For your safety and health, please wear experimental clothes and disposable gloves.

