

## 甲苯胺蓝染色液(1%, 硼酸盐法)

货号: G3663

规格: 100mL

保存: 室温, 避光保存, 有效期至少 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。具备异染性, 因此也有酸性缓冲、中性缓冲和碱性缓冲三种染色液配置方式。碱性缓冲这种方法更适用于塑封切片和半薄切片的染色。通常在为了更好的暴露目标区域和调整切片位置而进行该染色。该染色剂也可用于周围神经、坐骨神经等小组织标本的塑料切片染色, 用于一般形态学分析。

甲苯胺蓝染色液(1%, 硼酸盐法)由于硼酸盐缓冲液呈强碱性, 更利于环氧树脂包埋样本的染色。

### 操作步骤: (仅供参考)

1. 塑封组织块切成 0.5-1 $\mu$ m 厚的切片。
2. 载玻片上滴一滴蒸馏水, 使用金属环转移切片至蒸馏水上。
3. 将载玻片放在 55-60 $^{\circ}$ C 恒温加热台或 40W 的灯泡上加热其干燥。
4. 切片完全干燥后, 保持加热的情况下滴加 100-200 $\mu$ L 试剂使其覆盖组织, 染色 1-2min。
5. 用蒸馏水洗去多余染色液。
6. 风干切片, 中性树脂封片。

### 染色结果:

细胞核, 基底细胞癌细胞	深蓝色
细胞质	浅蓝色
鳞状细胞癌细胞	青绿色
异染色质	粉红色

### 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. 本产品单独染色多用于组织定位, 整体着不同程度的蓝色, 不易分辨形态。如需更进一步的形态学观察可以和碱性品红配合使用。
3. 针对于胃粘膜组织、软骨组织等较难着色组织的染色, 于甲苯胺蓝染色的时间应相应延长。
4. 甲基丙烯酸酯包埋的切片更易着色, 通常建议使用更短的染色时间。也可使用 70%乙醇进行分化, 但是要小心冲洗防止切片脱落。
5. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

### 相关产品:

- G3660 甲苯胺蓝染色液(细胞专用)
- G3661 甲苯胺蓝染色液(1%, 磷酸盐法)
- G3662 甲苯胺蓝染色液(0.5%, 磷酸盐法)
- G3665 甲苯胺蓝染色液(0.5%, 硼酸盐法)
- G3668 甲苯胺蓝染色液
- G3670 肥大细胞染色液(甲苯胺蓝法)

## Toluidine Blue O Solution, 1% in Sodium Borate

**Cat:** G3663

**Size:** 100mL

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

### Introduction

Toluidine blue is a common synthetic dye, which belongs to quinone imine dyes. It has metachromatic property, so there are three kinds of dyeing solution configuration: acidic, neutral and alkaline. This method is used for staining of TEM thick sections. The stained sections can be used as guideline to determine the area of interest and further trimming of Embed blocks. Therefore precise ultra-thin sections can be cut and mounted on TEM grids. This stain can also be used for staining of plastic sections of small tissue samples such as peripheral nerve, sciatic nerve, etc. for general morphological analysis.

Toluidine Blue O Solution, 1% in Sodium Borate is more conducive to the dyeing of epoxy resin embedded samples due to the strong alkaline borate buffer.

### Protocol (for reference only)

1. Cut thick (semithin) sections at 0.5 $\mu$ m or 1.0 $\mu$ m.
2. Use a metal loop to collect thick sections, and transfer sections to a drop of distilled water on a glass slide.
3. Dry sections down on a glass slide by placing the slide on a slide warmer or 40 wt lamp.
4. After the sections are completely dried, cover with a few drops of staining solution (with the heat source still on) for 1-2 min depending on the darkness of staining you would like to achieve.
5. Rinse off excess stain gently with distilled water.
6. Air dry the slide.
7. Coverslip with regular mounting medium.

### Results

Nucleus, basal cell carcinoma cell	Dark Blue
Cytoplasm	Pale Blue
Squamous cell carcinoma cell	Turquoise
Heterochromatin	Pink

### Note

1. When using this reagent for the first time, it is recommended to take 1-2 samples for pre experiment.
2. This product is mainly used for tissue positioning with different degrees of blue on the whole, so it is difficult to distinguish the shape. If further morphological observation is needed, it can be combined with basic fuchsin.
3. The staining time for mast cell should be prolonged for the staining of hard colored tissues like gastric mucosa and cartilage.
4. Methacrylate sections may need shorter stain times to prevent high background from stain bound to the plastic. A brief rinse with 70% ethanol will remove this background at the risk of loosening the section from the slide.
5. For your safety and health, please wear experimental clothes and disposable gloves.

### Related Products

- G3660 Toluidine blue staining Solution, For Cell
- G3661 Toluidine Blue O solution, 1% in PBS
- G3662 Toluidine Blue O Solution, 0.5% in PBS
- G3665 Toluidine Blue O Solution, 0.5% in Sodium Borate
- G3668 Toluidine Blue O Solution
- G3670 Mast Cells Stain Solution (Toluidine blue Method)