

## 阿利新蓝染色试剂盒(pH=1.0)

货号: G1563

规格: 3×50mL/3×100mL

保存: 2-8℃, 避光保存, 有效期 6 个月。

### 产品组成:

名称	3×50mL	3×100mL	保存
试剂(A): Alcian 酸化液	50mL	100mL	室温
试剂(B): Alcian 染色液	50mL	100mL	2-8℃, 避光
试剂(C):核固红染色液	50mL	100mL	室温, 避光

### 产品介绍:

阿利新蓝 (Alcian) 又称爱先蓝或阿尔辛蓝等, 是一种类铜钽花青共轭染料, 最初用于纺织纤维染色。这种阳离子染料与酸性基团结合, 即阿尔辛蓝与组织内含有的阴离子基团如羧基和硫酸根形成不溶性复合物。阿利新蓝由中央含铜的酞菁环与四个异硫脲基通过硫醚键相连而成, 可以在不同 pH 下与不同阴离子集团结合并着色。在 pH 2.5 时可染色普通酸性间充质粘蛋白, 在 pH 1.0 染色硫酸化粘蛋白和在 pH 0.5 染色复合酸结缔组织粘蛋白, 不染色中性粘蛋白。

阿利新蓝染色试剂盒(pH=1.0)能够对硫酸角质素和硫酸软骨素修饰的糖蛋白进行染色, 可用于进行软骨染色, 粘蛋白染色和肠化生程度判定, 还可用于粘液性上皮肿瘤的鉴别和肿瘤中是否含有粘液物质的证明。本试剂盒含核固红复染液可对细胞核进行着色辅助形态学观察。

### 操作步骤: (仅供参考)

试剂(C):核固红染色液可能会由于絮凝产生悬浮物或少量沉淀, 建议取上清使用或沸水浴 5-10min 后晾至 30-40℃ 使用。(见注意事项 2)

1. 二甲苯脱蜡, 通过梯度乙醇后, 入蒸馏水水化 2min。
2. 入 Alcian 染色液浸染 30min。蒸馏水洗 30s。
3. Alcian 酸化工作液稍洗(按 Alcian 酸化液:蒸馏水=1:2 的比例配制)。
4. 不经水洗, 直接用滤纸吸干多余的 Alcian 酸化工作液。
5. 入核固红染色液复染 5min。蒸馏水洗 30s。
6. 常规乙醇脱水, 二甲苯透明, 中性树胶封片。

### 染色结果:

硫酸粘蛋白	蓝色
非硫酸化粘液物质不着色	不着色
细胞核	浅红色

### 注意事项:

1. 固定液推荐采用 10%中性福尔马林。
1. 试剂(C):核固红染色液为胶体性质溶液, 低温 (低于 25℃) 保存或长期储存由于絮凝产生悬浮物或少量沉淀, 属于正常现象, 一般不影响使用。如移液器吸取观察到明显浑浊, 可拧紧瓶盖沸水浴 5-10min 重新制备分散均匀的胶体溶液来恢复使用。
2. 该法可区分鉴别硫酸黏蛋白和蛋白多糖。
3. 染色过程中可根据实验要求调整染色时间。
4. 已开封试剂应在开封后 6 个月内使用完, 每次用后应及时拧紧瓶盖, 以免挥发或变质。
5. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

## Alcian Blue Stain Kit, pH 1.0

**Cat:** G1563

**Size:** 3×50mL/3×100mL

**Storage:** 2-8°C, avoid light, valid for 6 months.

### Kit Components

Reagent	3×50mL	3×100mL	Storage
Reagent (A): Alcian Acidic Solution	50mL	100mL	RT
Reagent (B): Alcian Staining Solution	50mL	100mL	2-8°C, avoid light
Reagent (C): Nuclear Fast Red Solution	50mL	100mL	RT, avoid light

### Introduction

Alcian, also known as alcian blue 8GX, is a conjugated dye of copper titanium cyanine, which was originally used for textile fiber dyeing. This cationic dye combines with acidic groups, that is, alcian blue forms an insoluble complex with anionic groups such as carboxyl groups and sulfate groups contained in the tissue. Alcian blue is formed by connecting the central copper containing phthalocyanine ring with four isothiourea groups through thioether bonds. It can be combined with different anion groups at different pH and colored. Ordinary acidic mesenchymal mucin can be stained at pH 2.5, sulfated mucin can be stained at pH 1.0 and complex acid connective tissue mucin can be stained at pH 0.5, and neutral mucin is not stained.

Alcian Blue Stain Kit, pH 1.0 can stain keratin sulfate and chondroitin sulfate modified glycoprotein. It can be used for cartilage staining, mucin staining and determination of intestinal metaplasia. It can also be used for identification of mucinous epithelial tumors and proof of whether mucinous substances are contained in tumors. This kit contains nuclear solid red double staining solution, which can be used for coloring and morphological observation of nuclei.

### Protocols(for reference only)

*Reagent (C): Nuclear Fast Red Solution may produce suspended solids or a small amount of precipitation due to flocculation. It is recommended to take supernatant or boil water bath for 5-10min and then air it to 30-40 °C. (see Note 2)*

1. For paraffin sections, dewax to distilled water.
2. Stain with Alcian Staining Solution for 30mins. Wash in running tap water.
3. Slightly wash in Alcian Acidic Working Solution(prepare according to the ratio of Alcian Acidic Solution: distilled water is 1:2).
4. Re-dyeing with Nuclear Fast Red Solution for 5mins. Wash in running tap water.
5. Dehydrate in series of alcohol, transparent by xylene and seal with resinene.

### Result

Sulfated Mucin	Blue
Non Sulfated Mucus	Uncolored
Nucleus	Light Red

### Note

1. The fixative adopts 10% neutral formalin.
2. Reagent (C): Nuclear Fast Red Solution is a colloidal solution, which is stored at low temperature (lower than 25 °C) or stored for a long time. Suspended solids or a small amount of precipitation are generated due to flocculation, which is a normal phenomenon and generally does not affect the use. If the colloid solution is evenly dispersed in the boiling bath, tighten the bottle cap for 5-10min to recover the turbid solution.
3. This method can be used to identify sulfated mucin and proteoglycan.
4. The dyeing time can be adjusted according to the experimental requirements.
5. The opened reagent shall be used up within 6 months after open, and the cap shall be tightened timely after each use to avoid volatilization or deterioration.
6. For your safety and health, please wear experimental clothes and disposable gloves.