

## 标准阿利新蓝染色试剂盒

货号: G1560

规格: 3×50mL/3×100mL

保存: 室温, 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	室温, 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。该异硫脲基呈中度碱性, 使阿利新蓝带阳离子。

利用染液的不同 pH 值可判定粘液物质的类属。在 pH=1 时, 羧基不能离子化因而不能着染, 但硫酸基可以被显示。在 pH=2.5 的时候, 带羧基的粘液质 (如蛋白多糖/透明质酸以及上皮酸性黏蛋白) 着色良好而硫酸化粘液质着染不佳。中性黏液质如胃黏膜和 Brunner 腺体部位的中性黏蛋白不能与阿利新蓝反应着色。常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。

### 操作步骤: (仅供参考)

1. 对于切片脱蜡至水, 对于细胞爬片或者细胞悬液则直接用多聚甲醛固定。
2. 入 Alcian 酸化液浸泡 3min。
3. 入 Alcian 染色液染色 30min。流水冲洗。
4. 入核固红染色液复染 5min。流水冲洗 1min。
5. 梯度乙醇脱水, 二甲苯透明, 中性树胶封片。

### 染色结果:

硫酸化粘液质 (硫酸黏蛋白和唾液黏蛋白)	蓝色
羧酸化粘液质 (蛋白多糖, 透明质酸)	蓝色
细胞核	红色

### 注意事项:

1. 固定液推荐使用 10%中性福尔马林。
2. 若要选择性鉴别硫酸化粘液质和羧酸化粘液质, 应使用 pH=1.0 的阿利新蓝, 即调 pH 值为 1.0。染色时间可根据染色深度做相应调整。
3. 本试剂仅适用于科研领域, 不适用于临床诊断或其他用途。
4. 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:

G1563 阿利新蓝染色试剂盒 (pH=1.0)

G1562 阿利新蓝染色液 (pH2.5)

## Alcian Blue Stain Kit, pH 2.5

**Cat:** G1560

**Size:** 3×50mL/3×100mL

**Storage:** RT, avoid light, valid for 6 months.

### Introduction

Alcian blue is a kind of copper titanium cyan conjugate dye, which was originally used for textile fiber dyeing. This kind of cationic dye combines with acid group, that is, alcian blue forms insoluble complex with anionic group such as carboxyl group and sulfate group. Alcian blue is composed of copper containing phthalocyanine ring in the center and four isothioureia groups connected by thioether bond. The isothioureia group is moderately alkaline, which makes alcian blue cationic.

According to the different pH value of dye solution, the genus of mucus can be determined. When pH value is 1, the carboxyl group cannot be ionized and thus cannot dye, but the sulfuric acid group can be shown. When pH value is 2.5, the mucin with carboxyl group (such as proteoglycan / hyaluronic acid and epithelial acid mucin) is well dyed, while the sulfated mucin is poorly dyed. The neutral mucin in gastric mucosa and Brunner gland could not react with alcian blue. It is often used to distinguish mucinous epithelial tumors and to prove whether there is mucinous substance in tumors.

### Kit Components

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

### Protocols(for reference only)

1. For paraffin sections, dewax to distilled water. For cell smear or cell suspension, fix in paraformaldehyde.
2. Soak in Alcian Acidic Solution for 3mins.
3. Stain with Alcian Staining Solution for 30mins.
4. Wash in running tap water.
5. Re-dyeing with Nuclear Fast Red Solution for 5mins.
6. Wash in running tap water for 1 min.
7. Dehydrate in series of alcohol, transparent by xylene and seal with resinene.

### Result

Sulfated Mucin (Sulfated Mucin and Salivary Mucin)	Blue
Carboxylated Mucin (Proteoglycan, Hyaluronic Acid)	Blue
Nucleus	Red

### Note

1. The fixative adopts 10% neutral formalin.
2. To selectively identify sulfated mucin and carboxylated mucin, alcian blue with pH is 1.0 should be used, it is to adjust the pH value to 1.0. The dyeing time can be adjusted according to the dyeing degree.
3. This reagent is only suitable for scientific research, not for clinical diagnosis or other purposes.
4. For your safety and health, please wear experimental clothes and disposable gloves.

### Related Products

G1563 Alcian Blue Stain Kit, pH 1.0

G1562 Alcian Blue Solution, pH 2.5