# 淀粉样物质染色试剂盒(Highman 刚果红法)

**货号：**G1535
**规格：**3×50mL
**保存：**室温，避光保存，有效期 6 个月。

## 产品组成：

| 名称 | 3×50mL | 保存 |
|---|---|---|
| 试剂(A): Highman 刚果红染色液 | 50mL | 室温，避光 |
| 试剂(B): 碱性分化液 | 50mL | 室温 |
| 试剂(C): Lillie- Mayer 苏木素染液 | 50mL | 室温，避光 |

## 产品介绍：

淀粉样物质是一种无固定形状的细胞外嗜酸性物质，可存在于不同的组织、器官导致的疾病称为淀粉样变。淀粉样物质主要是由蛋白质构成，该蛋白大部分排列成反向的β-折叠层结构。在电子显微镜下，淀粉样物质呈原纤维排列，病例材料中为大量细胞外的、不分支的细丝，大多随机排列。

用于识别淀粉样物质的组织学方法有甲基紫染色、刚果红染色、偏振光显微镜观察等。目前研究发现传统的甲基紫染色法灵敏度低、特异性差。经典的而且有效的方法是刚果红染色，1922 年 Bennhold 发现了刚果红可以用于活体内淀粉样物质的鉴别，并应用到组织切片。后来经过 Highman 改良，染色效果更好。

## 自备材料：

10%的福尔马林、蒸馏水或去离子水、系列乙醇

## 操作步骤：(*仅供参考*)

1. 10%的福尔马林常规固定，常规脱水包埋。
2. 石蜡切片脱蜡入蒸馏水；冰冻切片直接入蒸馏水。如有必要，可以去除色素。
3. 入 Highman 刚果红染色液，浸染 5-10min。
4. 碱性分化液分化 3-10s，立即入水终止分化。自来水冲洗。
5. 样本入 Lillie-Mayer 苏木素染色液中，染细胞核 1-2min。
6. 自来水稍微冲洗，更换双蒸水清洗，使其分化、返蓝。
7. 逐级常规乙醇脱水。二甲苯透明。中性树胶封固。

## 染色结果：

| | |
|---|---|
| 淀粉样物质、弹力纤维、嗜伊红颗粒 | 红色 |
| 细胞核 | 蓝色 |

## 注意事项：

1. 切片脱蜡应尽量干净，否则影响染色效果。
2. 碱性乙醇分化液应密闭保存，一旦开启，尽快用完。
3. 碱性乙醇分化液分化步骤很重要，应及时入水终止分化，防止分化过度。
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：

*G1534 淀粉样物质染色试剂盒（改良 Highman 刚果红法）*
*G1530 淀粉样物质染色试剂盒（Bennhold 刚果红法）*
*G1533 淀粉样物质染色试剂盒（Puchtler 碱性刚果红法)*
*G1532 淀粉样物质染色试剂盒（改良 Stores 刚果红法）*

# Congo Red Amyloid Stain Kit(Highman Method)

**Cat:** G1535
**Size:** 4×50ml
**Storage:** RT, avoid light, valid for 6 months.

## Introduction

Amyloid is a kind of extracellular acidophilic substance with no fixed shape, which can exist in different tissues and organs, resulting in diseases called amyloidosis. Amyloid is mainly composed of proteins, most of which are arranged in reverse β - fold structure. Under the electron microscope, the amyloid materials are arranged as fibrils. In the case materials, there are a large number of non branching filaments, most of which are randomly arranged. The histological methods for the identification of amyloid substances include Violet Staining, Congo Red Staining and polarized light microscopy. In 1922, Bennhold found that Congo red can be used to identify starch like substances in vivo, and applied to tissue sections. After the improvement of highman, the dyeing effect is better.

## Kit Components

| Reagent | 3×50mL | Storage |
|---|---|---|
| Reagent (A): Highman Congo Red Staining Solution | 50mL | RT, avoid light |
| Reagent (B): Alkaline Differentiation Solution | 50mL | RT |
| Reagent (C): Lillie-Mayer Hematoxylin Staining Solution | 50mL | RT, avoid light |

## Self Provided Materials

10% formalin or distilled water, series of alcohol.

## Protocols(*for reference only*)

1. Conventionally fix in 10% neutral formalin, dehydrate and embed.
2. For paraffin section, dewax to distilled water; For frozen section, directly rinse into distilled water. If necessary, can remove the pigment.
3. Soak in Highman Congo Red Staining Solution and dye for 5-10mins.
4. Differentiate by Alkaline Differentiation Solution for 3-10s and then immediately remove to distilled water to stop differentiation.Wash with tap water.
5. Stain with Lillie-Mayer Hematoxylin Staining Solution for 1-2mins.
6. Slightly wash with tap water and replace the distilled water to make it differentiate and return blue.
7. Dehydrate by series of alcohol.Transparent by xylene.Seal with resinene.

## Result

| | |
|---|---|
| Amyloid, Elastic Fiber, Eosinophilic Granules | Red |
| Nucleus | Blue |

## Note

1. Section dewaxing should be as clean as possible, otherwise it will affect the dyeing effect.
2. The Alkaline Differentiation Solution should be kept in a closed state. Use it up as soon as possible once open.
3. The differentiation process of Alkaline Differentiation Solution is very important. It is necessary to enter water in time to stop differentiation to prevent excessive differentiation.
4. For your safety and health, please wear experimental clothes and disposable gloves.

## Related Products

*G1534 Congo Red Amyloid Stain Kit(Modified Highman Method)*
*G1530 Congo Red Amyloid Stain Kit(Bennhold Method)*
*G1533 Congo Red Amyloid Stain Kit(Puchtler Method)*
*G1532 Congo Red Amyloid Stain Kit(Modified Stores Method)*