V02

迈格林华染色试剂盒(MG 法)

货号： G3100
规格： 2×100mL/2×500mL
保存： 室温，避光保存，有效期 2 年。

产品组成：

名称	2×100mL	2×500mL	保存
试剂(A)：May-Grunwald Stain	100mL	500mL	室温，避光
试剂(B)：MG磷酸盐缓冲液	100mL	500mL	室温
取A、B等量混合，即为May-Grunwald工作液，不宜预先配制。			

产品介绍：

May-Grunwald-Giemsa Stain 经常用于组织切片、血液和细胞涂片、细菌、染色体显带、原生动物寄生虫等染色，尤其适用于胃幽门螺杆菌染色。胃幽门螺杆菌(Helicobacter Pyloric)又称胃幽门弯曲菌(Campylobacter Pyloric)。现已证实这种细菌与慢性胃炎和消化性溃疡有密切关系。胃幽门螺杆菌一般呈弧形、S 形或海鸥状，有时可见 3～4 个弯曲呈螺旋状，常呈鱼群状分布。该菌多见于胃黏膜表面上皮与黏膜层之间，并贴近表面上皮细胞，部分进入上皮细胞胞质内，胃小凹和黏膜浅层腺腔内亦有此菌。

幽门螺旋杆菌染色方法主要由亚甲蓝法、硝酸银法、迈格林华-姬姆萨法(May-Grunwald-Giemsa，MGG 法)、碱性品红法等。硝酸银法对比清楚，染片可以长期保存，但操作较为麻烦耗时。其他方法较为简便、但染片容易褪色。切片经 May-Grunwald 染色后，胃幽门螺旋杆菌呈蓝色，胶原纤维呈红色，红细胞呈绿色，胃黏膜上皮呈淡蓝色，细胞核呈深蓝色。

自备材料：

10%福尔马林固定液、蒸馏水、无水乙醇

操作步骤：(*仅供参考*)

1、 组织固定于 10%福尔马林，常规脱水包埋。
2、 切片厚 4μm，常规脱蜡至水。
3、 蒸馏水洗 1 次。
4、 把切片周围水分抹干，滴加 May-Grunwald 工作液覆盖组织染色 10～15min，倾去染液。
5、 无水乙醇快速洗去余液，稍烤干。
6、 二甲苯透明，中性树胶封固。

染色结果：

胃幽门螺旋杆菌，细胞核，胃黏膜上皮	蓝色
胶原纤维	红色
红细胞	绿色

注意事项：

1、 May-Grunwald 工作液须于临用前配置，不易保存。
2、 最后的无水乙醇要速洗，否则容易脱色。
3、 胃幽门螺旋杆菌仅用 Giemsa Stain 工作液染色也可以显示出来，也较清晰。其最佳效果应为 May-Grunwald Stain 和 Giemsa Stain 合用。
4、 为了您的安全和健康，请穿实验服并戴一次性手套操作。

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May-Grunwald Stain Kit

Cat: G3100
Size: 2×100mL/2×500mL
Storage: RT, avoid light, valid for 2 years.

Kit Components

Reagent	2×100mL	2×500mL	Storage
Reagent(A)：May-Grunwald Stain	100mL	500mL	RT, avoid light
Reagent(B)：MG Phosphate Buffer	100mL	500mL	RT
Mix Reagent A and B in an equal amount to form May-Grunwald Working Solution. It is not suitable to prepare in advance.			

Introduction

May-Grunwald Stain is often used for staining of tissue sections, blood and cell smears, bacteria, chromosome banding, protozoa parasites and so on. It is especially for helicobacter pyloric. Helicobacter pylori is also known as campylobacter pylori. It has been proved that the bacteria is closely related to chronic gastritis and peptic ulcer. Helicobacter pyloric in the stomach is generally arc-shaped, S-shaped or seagull shaped, and sometimes 3-4 bends are seen in spiral shape, often in the shape of fish. Helicobacter pyloric is mostly found between the surface epithelium and the mucosal layer of the gastric mucosa, and close to the surface epithelial cells, some of them enter into the cytoplasm of the epithelial cells, and the bacteria are also found in the gastric fovea and the superficial glandular cavity of the mucosa.

The main staining methods of helicobacter pyloric are Methylene Blue method, Silver Nitrate method, May-Grunwald-Giemsa (MGG) method and Basic Fuchsin method. Silver Nitrate method has a clear contrast and the stained section can be preserved for a long time, but the operation is more time-consuming and troublesome. Other methods are simple and convenient, but the stained section is easy to fade. After May-Grunwald staining, helicobacter pyloric is blue, collagen fiber is red, red blood cell is green, gastric mucosa epithelium is light blue, the nucleus is dark blue.

Self Provided Materials

10% formalin fixative, distilled water, absolute ethanol

Protocols(*for reference only*)

1. Fix the tissue in 10% formalin and conventionally dehydrate and embed.
2. Cut into sections in 4μm thick, and dewax to distilled water.
3. Wash with distilled water once.
4. Wipe the water around the section, drop May-Grunwald Working Solution onto the section and stain for 10-15min, and then discard the solution.
5. Quickly wash away the remaining solution with absolute alcohol and dry it slightly.
6. Transparent by xylene and seal with resinene.

Result

Helicobacter pyloric, Nucleus,Epithelium of gastric mucosa	Blue
Collagen fiber	Red
Red blood cell	Green

Note

1. May-Grunwald Working Solution must be prepared before use and it is not easy to preserve.
2. Wash quickly in the final absolute ethanol, otherwise it is easy to decolorize.
3. Helicobacter pyloric can be showed when only staining with Giemsa Stain and the color is clear. But the best effect is staining with combination of May-Grunwald Stain and Giemsa Stain.
4. For your safety and health, please wear experimental clothes and disposable gloves.