May-Grunwald Stain Solution

M1510448

Storage Room temperature. Store in the dark.
Shipping Regular transportation.

Introduction

May-Grunwald-Giemsa Stain is commonly used for staining tissue sections, blood and cell smears, bacteria, chromosome banding, and protozoan parasites, and is particularly suitable for staining Helicobacter pylori. Helicobacter pylori, also known as Campylobacter pyloric, has been confirmed to be closely associated with chronic gastritis and peptic ulcers. Helicobacter pylori is generally arc-shaped, S-shaped or seagull-shaped; sometimes it shows 3–4 curves to form a spiral shape, and is often distributed in a fish-school-like pattern. The bacterium is mostly found between the surface epithelium and the mucosal layer of the gastric mucosa, adhering closely to the surface epithelial cells, with some entering the cytoplasm of epithelial cells. It can also be detected in gastric pits and the glandular lumens of the superficial mucosa.

The main staining methods for Helicobacter pylori include the methylene blue method, silver nitrate method, May-Grunwald-Giemsa method (MGG method), and basic fuchsin method. The silver nitrate method yields clear contrast and stained slides can be preserved for a long time, but the operation is cumbersome and time-consuming. Other methods are relatively simple, yet the stained slides are prone to fading. After staining sections with May-Grunwald Stain, Helicobacter pylori appears blue, collagen fibers appear red, red blood cells appear green, gastric mucosal epithelium appears light blue, and cell nuclei appear dark blue. This reagent is for research use only and is not suitable for clinical diagnosis or other purposes.

Product Components and Storage Conditions:

M1510448	Component	2×100mL	Storage
M1510448A	May-Grunwald Stain	100mL	RT
M1510448B	MG Phosphate Buffer Solution	100mL	RT

Self-prepared Materials:

1. Xylene or paraffin-embedded dewaxing and clearing solution, 10% formalin fixative.
2. Distilled water, graded ethanol, neutral balsam.

Operating Procedures (For Reference Only):

1. Fix the tissue in 10% formalin, then perform routine dehydration and embedding.
2. Cut the tissue into sections with a thickness of 4 μm, conduct routine dewaxing to water

using xylene or paraffin-embedded dewaxing and clearing solution, and rinse once with distilled water.

3. Wipe off the water around the sections, add several drops of May-Grunwald Stain working solution, stain for 10–15 minutes, and pour off the staining solution.
4. Quickly rinse off the residual solution with anhydrous ethanol and dry slightly by heating.
5. Clear the sections with xylene or dewaxing and clearing solution, then mount the sections with neutral balsam.

Staining Results:

Helicobacter pylori, Cell nucleus, Gastric mucosal epithelium	Blue
Collagen fibers	Red
Red blood cells	Green

Precautions:

1. May-Grunwald working solution must be prepared immediately before use and is not suitable for long-term storage.
2. The final rinsing step with anhydrous ethanol should be performed quickly; otherwise, the stain is prone to fading.
3. Helicobacter pylori can also be clearly visualized by staining with Giemsa Stain working solution alone. For optimal staining results, the combined use of May-Grunwald Stain and Giemsa Stain is recommended (refer to Aladdin Helicobacter pylori Staining Solution (MGG Method) (H1510399)).
4. For your safety and health, please wear a lab coat and disposable gloves during operation.
5. Please use the reagent as soon as possible after opening to avoid affecting the results of subsequent experiments.