

Helicobacter pylori Stain Solution (MGG Method)

H1510399

Storage Room temperature. Store in the dark.

Shipping Regular transportation.

Introduction

Helicobacter pylori (HP), also known as Campylobacter pyloric, has been proven to be closely associated with chronic gastritis and peptic ulcers. H. pylori is generally arc-shaped, S-shaped or seagull-like; sometimes it appears as a spiral with 3–4 curves, and is often distributed in a fish-school pattern. The bacteria are mostly found between the surface epithelium and the mucosal layer of the gastric mucosa, adhering closely to the surface epithelial cells, with some invading the cytoplasm of epithelial cells. They can also be detected in the gastric pits and the glandular lumens of the superficial mucosa. Common staining methods for H. pylori include the methylene blue method, silver nitrate method, May-Grunwald-Giemsa (MGG) method, and basic fuchsin method. The silver nitrate method yields clear contrast and the stained slides can be preserved for a long time, but the operation is relatively cumbersome and time-consuming. Other methods are more convenient, yet the stained slides are prone to fading.

Aladdin Helicobacter pylori Stain Solution (MGG Method) is mainly composed of May-Grunwald stain and Giemsa stain. After staining, H. pylori appears blue, collagen fibers are stained red, red blood cells show green, gastric mucosal epithelium turns pale blue, and cell nuclei are dark blue. HP is mostly located in the mucus on the surface of the gastric mucosal epithelium, and is particularly abundant in the gastric pits. This reagent is for research use only. It is not suitable for clinical diagnosis or any other purposes.

Product Components and Storage Conditions:

H1510399	Component	2×100mL	Storage
H1510399A	May-Grunwald Stain	50mL	RT. Store in the dark.
H1510399B	MG Phosphate Buffer	50mL	RT
H1510399C	Giemsa Stain	50mL	RT. Store in the dark.
H1510399D	Giemsa Phosphate Buffer	50mL	RT

Mix equal volumes of A and B to prepare the May-Grunwald working solution. Do not prepare in advance.

Mix equal volumes of C and D to prepare the Giemsa working solution. Do not prepare in advance.

Materials to Be Prepared by the User:

10% formalin fixative, distilled water, graded ethanol solutions.

Operating Procedures (For Reference Only):

1. Fix the tissue in 10% formalin, then perform routine dehydration and embedding.
2. Cut sections with a thickness of 4 μm , and deparaffinize them to water using routine xylene or deparaffinizing clearing solution.
3. Rinse once more with distilled water.
4. Wipe dry the water around the sections, add several drops of May-Grunwald working solution and stain for 10 minutes, then pour off the staining solution.
5. Add Giemsa working solution dropwise and stain for 20 minutes, then pour off the staining solution.
6. Quickly rinse off the residual solution with anhydrous ethanol, and bake slightly to dry.
7. Clear the sections with xylene or deparaffinizing clearing solution, and mount with neutral balsam.

Staining Results:

Helicobacter pylori	Blue
Collagen Fibers	Red
Red Blood Cells	Green
Gastric Mucosal Epithelium	Pale Blue
Cell Nuclei	Dark Blue

Precautions:

1. The May-Grunwald working solution and Giemsa working solution in the Helicobacter pylori Staining Solution (MGG Method) must be prepared immediately before use and are not suitable for storage.
2. The final rinse with anhydrous ethanol should be performed quickly; otherwise, the stain is liable to fade.
3. Helicobacter pylori can also be clearly visualized by staining with Giemsa working solution alone.
4. For your safety and health, wear a lab coat and disposable gloves during operation.
5. Please use the reagent as soon as possible after opening to avoid affecting subsequent experimental results.