Wright-Giemsa Combined Staining Kit

Cat #: A-CSH291

Size: 2×100mL, 2×500mL

Storage: 10-30 °C, Avoid exposure to light (2 years)

Product Description

Component	2×100ml	2×500ml	Store at
Reagent (A): Wright-Giemsa Stain	100ml	500ml	10-30°C, Avoid exposure to light
Reagent (B): Phosphate Buffer Solution	100ml	500ml	10-30°C

Wright-Giemsa stain is a composite dye composed of the acidic dye Eosin and the basic dye Methylene Blue, which exhibits distinct staining effects on the cytoplasm. Giemsa stain is a mixture of Azure II and Eosin, and its staining principle and results are similar to the Wright's staining method. Giemsa stain has a stronger staining affinity for the cytoplasm and can better demonstrate the degree of basophilia in the cytoplasm, especially for basophilic, acidophilic, and basophilic granules in blood and bone marrow cells, resulting in clear staining. However, it tends to produce excessive staining of the cell nuclei and poor visualization of nuclear structures. Therefore, Giemsa stain is often used in combination with Wright's stain.

The Wright-Giemsa combined staining reagent kit, with high-quality Wright's and Giemsa dyes as the main ingredients, can provide clear cellular staining effects. It is commonly used for blood and cell smears, bone marrow cell smears, and bacterial staining. The cytoplasm appears red, the cell nucleus and bacteria appear blue, and acidophilic granules appear orange-red. Neutral glycerol is added to the staining solution to prevent the evaporation or oxidation of methanol and to enhance the clarity of blood cell staining. The characteristics of this staining solution are as follows: it consists of the Wright-Giemsa combined staining solution and phosphate buffer solution, which can be used in equal amounts or separately to process the specimens.

Usage

1. Prepare blood smears, bone marrow smears, or bacterial smears using standard methods and allow the smears to air dry.
2. Place the blood smears or bone marrow smears on a staining rack.
3. Add an appropriate amount of Wright-Giemsa stain to cover the smears and stain at room temperature for 1-2 minutes.
4. Add an equal amount of phosphate buffer solution to the smears and gently mix the slide or use other methods to ensure thorough mixing of the phosphate buffer solution with the Wright-Giemsa stain. Allow it to sit at room temperature for 3-10 minutes.
5. Alternatively, the following method can be used for steps 3 and 4: Mix equal amounts of Wright-Giemsa stain and phosphate buffer solution to prepare the working solution. Add the working solution to the blood smears or bone marrow smears and allow it to sit at room temperature for 3-10 minutes.
6. Gently rinse the slide with tap water or distilled water from one end. (Note: The slide can also be rinsed with diluted phosphate buffer solution for approximately 30 seconds.)
7. Allow the slide to dry. Examine the slide using a low-power microscope followed by an oil immersion objective.

Staining Results

Bacteria, cell nuclei	Blue
Cytoplasm of tissue cells, hemoglobin, acidophilic granules	Pink or orange-red

Notes

1. Blood smears or bone marrow smears should be evenly spread and of proper thickness to ensure optimal staining results.
2. During the staining process, do not remove the staining solution first or rinse the smears forcefully. Do not discard the staining solution first to prevent dye deposition on the smears.
3. The staining solution can be reused, but repeated reuse should be avoided. If there are precipitates, filter them before reuse.

4. If the staining is too intense, slight decolorization can be achieved using methanol or ethanol, but it is preferable not to restain.
5. If the staining is too deep or too light, adjust the staining time or the concentration of the working solution.
6. For your safety and health, please wear laboratory attire and disposable gloves while conducting the procedure.

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.