Giemsa Stain Solution Instructions for Use

Product Name: Giemsa Stain Solution

Catalog Number: BCL083

Specification: 250 mL

The Giemsa staining procedure primarily consists of fixation, staining, rinsing, and drying, and is commonly used for blood smears or bone marrow smears. The general steps are: first fix air-dried smears with methanol, then stain with diluted Giemsa stain for 10–15 minutes, gently rinse with tap water or buffer, and finally dry for oil-immersion microscopy. Key factors include the stain dilution ratio, staining time, and pH control.

General Giemsa Staining Procedure for Blood Smears

1. **Prepare Smear:** Prepare an even blood or bone marrow smear and allow it to air-dry naturally.
2. **Fixation:** Fix the smear with methanol for 2–3 minutes, or apply methanol directly onto the air-dried smear.
3. **Staining:**
    - Place the smear on a staining rack.
    - Apply diluted Giemsa stain (usually diluted 5–10 times with buffer or distilled water) to completely cover the smear.
    - Stain at room temperature for 10–30 minutes, gently tilting or intermittently agitating the slide.
4. **Rinsing:** Slowly and gently rinse from one end using tap water or distilled water.
5. **Differentiation (Optional):** Differentiate for a few seconds using a solution such as 0.1% acetic acid to prevent over-staining.
6. **Drying:** Allow the slide to air-dry naturally.
7. **Microscopy:** Observe under an oil-immersion objective (start with low power, then switch to oil immersion).

Simplified Giemsa Staining Procedure for Tissue Sections

1. Perform routine dehydration, embedding, sectioning, and deparaffinization down to water.
2. Rinse with distilled water.
3. Immerse and stain in diluted Giemsa stain for 12–24 hours.
4. Briefly rinse with distilled water.
5. Quickly rinse with 0.1–0.5% acetic acid.
6. Rapidly dehydrate with absolute ethanol.
7. Clear with xylene and mount with neutral resin.

Precautions

- **pH Value:** Giemsa staining is sensitive to pH; use a buffer with a pH of 6.8–7.4 for dilution and rinsing.

- **Stain Quality:** Ensure the stain exhibits a metallic sheen before use (indicating efficacy).
- **Rinsing:** Avoid vigorous rinsing to prevent dye precipitation.
- **Avoid Contamination:** Ensure slides are clean and free from acid or alkali contamination.