



Jenners Stain

Intended Use

The Jenner stain Solution is a mixture of several thiazin dyes in a methanol solvent. Ionic and noionic forces are involved in the binding of these dyes. The staining solution has anionic and cationic properties. The negatively charged phosphoric acid groups of DNA attract the purple polychromatic cationic dyes to the nuclei. The blue basophilic granules are stained by the polychromatic cationic dyes. Cationic cellular components, such as erythrocytes and eosinophilic granules, are stained by the red and pink anionic dyes. The buffers used in the staining procedure liberate and activate dye ions allowing them to chemically bond with specific cellular components. When staining blood and bone marrow smears, the pH of the staining solution and or buffer is a critical factor.

General Information

Jenner Stain Solution should be stored at room temperature. This staining reagent is for “In Vitro” use only. Refer to the Material Safety Data Sheet for Health and Safety Information. All reagents are stable and should not form precipitants under ordinary storage parameters. It is recommended that the Jenner Stain Solution be discarded after each use.

Packaging

Catalog #	Volume
5217	Jenners Stain, 1 Gallon
5215	Jenners Stain, 1 Pint
5216	Jenners Stain, 1 Quart

Immersion Staining Protocol

- Thoroughly dry blood or bone marrow smears.
- Fix smears in absolute methanol for 15 seconds to 5 minutes.
- Stain smears in Jenners Stain Solution for 2 minutes.
- Stain in mixture of 50mL of Jenners Stain Solution, 75mL of PH6.6 Phosphate Buffer Solution and 175mL deionized water for 5 minutes.
- Rinse in standing deionized water for 1.5 minutes or rinse briefly in running deionized water.
- Air dry smears.
- Examine smears under a microscope.

Horizontal Staining Protocol

- Place slide with thoroughly dried film in a horizontal staining rack.
- Flood smear with absolute methanol for 15-30 seconds and then drain.

- Flood smear with 1mL Jenners Stain Solution and let stand for 3 minutes.
 - Add 1mL of pH 6.6 Phosphate Buffer solution and 1 mL deionized water to smear and let stand for 45 seconds.
 - Rinse briefly with running deionized water.
 - Air dry and examine under a microscope.
- Perform immuno chemical staining procedure according to manufacturer.

Technical Comments

Thicker films and bone marrow preparations will require longer staining times. Variation in the pH of tap water may hinder staining results. Distilled or deionized water should be used during the staining procedure. The “ripening” of the polychromed dye is a continuous chemical reaction. Therefore, the stock solution should not be used or diluted after the expiration date. The staining procedure may require modification to suit personal preference.