



Wright's Stain

S030

Wright's Stain is used as staining solution for blood films.

Composition**

Ingredients

(a)Wright stain	1.00 gm
Glycerol	50.00 ml
Methanol, absolute	50.00 ml
(b) Stock stain solution	4.00 ml
Acetone	3.00 ml
Phosphate buffer(1/15M,pH 6.5)	2.00 ml
Distilled water	31.00 ml
Both (a) and (b) are mixed in coplin jar .	

Phosphate buffer (1/15M,pH 6.5)

Potassium dihydrogen phosphate ,anhydrous	0.663 gm
Disodium phosphate ,anhydrous	0.256 gm
Distilled water	100.00 ml

**Formula adjusted, standardized to suit performance parameters

Directions

- 1) Prepare air dried blood film.
- 2) Apply the stain (S030) for 3 minutes (fixation), covering the slide completely.
- 3) Gently add buffer of the same quantity as the stain,and mix by blowing gently on the surface. Leave for 5 minutes.
- 4) Keep slides horizontal and wash well with neutral distilled water.
- 5) Dry by blotting and observe under the microscope.

Principle And Interpretation

The polychromatic staining solutions such as Wright stain contain methylene blue and eosin. These basic and acidic dyes induce multiple colours when applied to cells. Methanol acts as fixative and also as solvent. The fixative does not allow any further change in the cells and makes them adhere to the glass slide. The basic component of white cells (i.e. cytoplasm) is stained by acidic dye and they are described as eosinophilic or acidophilic. The acidic components (e.g. nucleus with nucleic acid) take blue to purple shades of the basic dyes and they are called basophilic. The neutral components of the cell are stained by both the dyes.

Quality Control

Appearance

Ink blue coloured solution

Clarity

Clear without any particles.

Microscopic Examination

Blood staining is carried out and staining characteristics are observed under microscope by using oil immersion lens.

Results

Erythrocytes	:	Yellowish red
Polymorphonuclears	:	Dark purple nucleus, reddish lilac granules, pale pink cytoplasm
Eosinophiles	:	Blue nuclei, red to orange red granules, blue cytoplasm
Basophiles	:	Purple to dark blue nucleus, dark purple granules
Lymphocytes	:	Dark purple nuclei, sky blue cytoplasm
Platelets	:	Violet to purple granules

Storage and Shelf Life

Store below 30°C in tightly closed container and away from bright light. Use before expiry date on label.

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**Disclaimer :**

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