# Wright's Stain, buffered

### Brief Description:

It is named for James Homer Wright, who devised the stain, a Romanowsky type metachromatic stain made by mixing old or specially treated methylene blue dye with eosin in a methanol diluent. Wright's stain is a technique in histology that is used to make the differences between cells visible under light microscopy. It is commonly used in the examination of peripheral blood smears and bone marrow

aspirates. Wright's stain is also used in cytogenetics to stain chromosomes on slides for visualization and diagnosis of sydromes and disease.

Basic components of the cell, such as hemoglobin or certain inclusions or granules, will unite with the acidic portion of the stain, eosin, and are said to be eosinophilic. These components are stained varying shades of pink or red. Acidic cell components, such as nucleic acids, reactive cytoplasm, etc. take up the basic dye components, methylene azure, and stain blue or purple. pH must be carefully controlled through the use of a buffer of 6.4-6.7. If the pH is too acidic the stain will take on a pinkish tint, and nuclear structures will be poorly stained. A basic pH will cause all intracellular structures, nuclei, etc. to be blue-black in color, with poorly defined structure.

Wright's Stain is provided as buffered solution.

#### Application:

Staining and General Differentiation of Blood Corpuscles

### Experimental Procedures (for blood smear):

- Fix the blood film for at least 30 seconds in absolute methanol.
- > Remove methanol by tilting the slide.
- > Apply Wright's Stain Buffered Solution for 5 min on a horizontally positioned slide.
- > Rinse the slide with (distilled) water for 30 seconds.
- > Dry the slide in a tilted position; do not blot-dry.
- > Mount a coverglass if desired.

## Troubleshooting:

- 1. The stain is too red and poor nuclear stain: the pH is too acidic (<6.4) the stain will take on a pinkish tint, and nuclear structures will be poorly stained.
- 2. Blue-black color poorly defined structure: the pH is too basic (>6.7), which will cause all intracellular structures, nuclei, etc. to be dark blue in color, with poorly defined structure.

#### For resaech use only

Catalogue #: CD004B Storage: RT Packing Size: 100mL

