

## INTENDED USE

Wright Stain Set, Catalog No. WSHT, is specifically designed for use with the Miles Hema-Tek® and Hema-Tek® 1000 Automated Slide Stainers. Wright Stain reagents are for "In Vitro Diagnostic Use."

When blood films are stained as described in the procedure, the white blood cell nucleus and cytoplasm take on characteristic blue or pink coloration. The purified dyes in the product eliminate inconsistent staining and yield lot-to-lot reproducible response.

## REAGENTS

**THIAZINE DYE SOLUTION**, Catalog No. T 3272  
Methanolic solution of a thiazine dye, 0.1% w/v.

**XANTHENE DYE SOLUTION**, Catalog No. X 2251  
Buffered solution of a xanthene dye, 0.05% w/v, with surfactant, pH 6.5. Sodium azide, 0.02%, added as preservative.

**RINSE SOLUTION 2**, Catalog No. RS 2  
Ethanol solution, 18% w/v, with surfactant. Sodium azide, 0.02%, added as preservative.

### STORAGE AND STABILITY:

Store reagents at room temperature (18-26 °C). Reagents are stable until expiration date shown on the label.

### DETERIORATION:

Discard if turbidity develops.

### PREPARATION:

Wright Stain Set is supplied ready for use.

### PRECAUTIONS:

Normal precautions exercised in handling laboratory reagents should be followed. Dispose of waste observing all local, state, provincial or national regulations. Refer to Material Safety Data Sheet for any updated risk, hazard or safety information.

#### US Risk and Safety Statements

Thiazine Dye Solution is **FLAMMABLE** and **TOXIC**. Toxic by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin. Keep container tightly closed. Keep away from sources of ignition – no smoking. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Caution: Xanthene Dye Solution contains sodium azide. Sodium azide may react with lead and copper plumbing to form highly explosive compounds. Avoid contact and inhalation.

Rinse solution 2 is **COMBUSTIBLE** and **HARMFUL**. Flammable. Harmful if swallowed. Irritating to eyes, respiratory system and skin. Keep away from sources of ignition – no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.

#### EU Risk and Safety Statements (Caution: Substances not yet fully tested)

Thiazine Dye Solution is **HIGHLY FLAMMABLE** and **TOXIC**. Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: Danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Keep container tightly closed. Keep away from sources of ignition – no smoking. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Xanthene Dye Solution. Avoid contact with skin and eyes. Do not breathe vapor. Rinse Solution 2 is an **IRRITANT**. Flammable. Irritating to eyes, respiratory system and skin. Keep away from sources of ignition – no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.

## PROCEDURE

### SPECIMEN COLLECTION:

It is recommended that specimen collection be carried out in accordance with NCCLS document M29-A2. No known test method can offer complete assurance that blood samples or tissue will not transmit infection. Therefore, all blood derivatives or tissue specimens should be considered potentially infectious.

Fresh whole blood films or fresh films from blood using EDTA as an anticoagulant.

### SPECIAL MATERIALS REQUIRED BUT NOT PROVIDED:

Miles Hema-Tek® or Hema-Tek® 1000 Stainer  
Microscope  
Microscope slides

### NOTES:

1. These settings have given satisfactory results in our laboratory. Individual preferences may dictate pump adjustments. If stain is too light, increase settings on Pump 1 until satisfactory color is obtained. For optimum results, it is recommended that the setting for Pump 2 does not exceed the setting for Pump 1.
2. Positive control slides should be included in each run.
3. The data obtained from this procedure serves only as an aid to diagnosis and should be reviewed in conjunction with other clinical diagnostic tests or information.

### PROCEDURE:

1. General instrument set-up and use as described in the Miles Hema-Tek procedure manual.
2. **THIAZINE DYE SOLUTION:**  
Remove cap, leaving inner seal on bottle to minimize moisture pick-up. Insert cannula from Pump 1 directly through seal.  
Pump Setting: -3 (maximum counterclockwise position of volume control knob).
3. **XANTHENE DYE SOLUTION:**  
Remove cap, leaving inner seal on bottle. Insert cannula from Pump 2 directly through seal.  
Pump Setting: -3 (maximum counterclockwise position of volume control knob).
4. **RINSE SOLUTION 2:**  
Remove cap, leaving inner seal on bottle. Insert cannula from Pump 3 directly through seal.  
Pump Setting: -3 (maximum counterclockwise position of volume control knob).

## PERFORMANCE CHARACTERISTICS

Nuclei will be varying shades of purple. Cytoplasmic staining will be varying shades of blue to light pink. Fine reddish to lilac granules may be present in cytoplasm of some cell types. Basophils will demonstrate dark blue black granules in the cytoplasm. Eosinophils will demonstrate bright orange granules in the cytoplasm. Red blood cells should be pink to orange.<sup>1</sup>

If observed results vary from expected results, please contact Sigma-Aldrich Technical Service for assistance.



## REFERENCES

1. Hematology: Principles and Procedures, Sixth Edition, Brown AB, Lea & Febiger, Philadelphia 1993 p101

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Wright Stain Set  
Procedure No. WSHT  
Previous Revision: 2003-03  
Revised: 2003-09

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