



**ACCUSTAIN®  
WRIGHT STAIN SET**

(Procedure No. WSHT-S)

**SIGMA-ALDRICH®**

For use with Miles Hema-Tek® and Hema-Tek® 1000 Automated Slide Strainers

**INTENDED USE**

Wright Stain Set, Catalog No. WSHT-S, is specifically designed for use with the Miles Hema-Tek® and Hema-Tek® 1000 Automated Slide Strainers. 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 chromogenic response.

**REAGENTS**

**WRIGHT STAIN**, Catalog No. W 4875  
Wright Stain, 0.14% w/v, in methanol with stabilizers.

**RINSE SOLUTION 1**, Catalog No. R 2381  
Aqueous solution, 10% v/v, with wetting agent and 0.02% sodium azide as preservative.

**RINSE SOLUTION 2**, Catalog No. RS 2  
Ethanol solution, 18% v/v, with wetting agent. Contains 0.02% sodium azide as preservative.

**STORAGE AND STABILITY:**  
Store Wright Stain Reagent set at room temperature (18-26°C). Reagents are stable until expiration date.

**DETERIORATION:**  
Discard Wright Stain Reagent set if a precipitate develops. Discard rinse solutions if turbidity develops.

**PREPARATION:**  
Reagents are 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 Date Sheet for any updated risk, hazard or safety information.

US Risk and Safety Statements  
Wright Stain is **FLAMMABLE** and **TOXIC**. May cause cancer. May cause heritable genetic damage. Irritating to eyes, respiratory system and skin. Toxic: Danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Avoid exposure – obtain special instructions before use. Keep container tightly closed. Take precautionary measures against static discharges. Keep away from sources of ignition – no smoking. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wear suitable protective clothing and gloves.

Rinse Solution 1 is an **IRRITANT**. Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves. Target organs: Kidneys and liver.

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)  
Wright Stain 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).

Rinse Solution 2 is an **IRRITANT**. Flammable. Irritating to eyes, respiratory system and skin. Keep away from sources of ignition – 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 anticoagulated with EDTA must be used. If the stained sample is to be evaluated with the Hematrak® system, a long wedge film with a straight, even feathered edge is required. Geometric Data Miniprep Automatic Smearing Device will provide an adequate specimen. Prior to preparation of films, blood must be thoroughly mixed at room temperature (18-26°C). The films should be prepared within 1 hour of blood collection. If not stained the same day, slides should be fixed in absolute methanol and stored in a dust-free container.

**SPECIAL MATERIALS REQUIRED BUT NOT PROVIDED:**

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

**NOTES:**

1. These settings have given satisfactory results in our laboratory. Individual color preference may necessitate volume control dial adjustments.
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 is as described in the Miles Hema-Tek® and Hema-Tek® 1000 procedure manuals.
2. **WRIGHT STAIN:** 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 dial).
3. **RINSE SOLUTION 1:** Remove cap, leaving inner seal on bottle. Insert cannula from Pump 2 directly through seal.  
Pump Setting: -3 (Maximum counterclockwise position of volume control dial).
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 dial).

**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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Procedure No. WSHT-S  
Previous Revision: 2003-03  
Revised: 2003-09

  AR-MED Ltd., Runnymede Malthouse  
Egham TW20 9BD United Kingdom

**SIGMA-ALDRICH, INC.**  
3050 Spruce Street, St. Louis, MO 63103 USA 314-771-5765  
Technical Service: 800-325-0250 or call collect 314-771-3122  
or e-mail at [clintech@sial.com](mailto:clintech@sial.com)  
To Order: 800-325-3010 or call collect 314-771-5750  
[www.sigma-aldrich.com](http://www.sigma-aldrich.com)

**SIGMA-ALDRICH CHEMIE GmbH**  
P.O. 1120, 89552 Steinheim, Germany 49-7329-970