

PRODUCT SPECIFICATION SHEET

WRIGHT STAIN(SI015)

Use

Wright Stain is used for blood staining and other purpose.

Principle

The polychromic staining solutions (Wrights, Leishmans) contain methylene blue and eosin. These basic and acidic dyes induce multiple colours when applied to cells. Methanol acts as fixative and also as a 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 acidophilc. The acidic components (e.g. nucleus with nucleic acid) take blue to purple shades by the basic dye and they are called basophilic. The neutral components of the cell are stained by both the dyes.

Formula

| Ingredients | Formula / Litre |
|----------------|-----------------|
| Wright stain | 3 gm |
| Giemsa Stain | 0.33gm |
| Methyl Alcohol | 970 ml |
| Glycerol | 30 ml |

Precautions

- 1. For Invitro Diagnostic use only.
- 2. Observe all standard safety precautions consistent with hazard(s) stated
- 3. Avoid contact with eyes, skin, or mucous membranes. If contact occurs, wash immediately with copious amounts of water. The reagent has corrosive and flammable liquids; keep away from open flame.

Storage & Stability

- 1. Store the bottle in dry, cool and dark place.
- 2. The shelf life of reagents is as per the expiry date mentioned on the reagent bottle labels.
- 3. Store at 15-30°C away from bright light.
- 4. Use before expiry date given on the product label.

Procedure

- 1. Stain provided contains methanol so it does not require separate fixing.
- 2. If staining is to be done later, smear can be fixed using methanol for 2-3 min.
- 3. Cover the slide with Wright stain for 2 min. This also allows fixation of the smear.
- 4. Add on the slide buffered water of about double the volume of the stain, allow staining to continue for 5-7 min., a metallic sheen should be formed on top of this mixture. Staining time may have to be adjusted according to the reaction of the stain. Reduce the time if overstained, increase the time if poorly stained.
- 5. Wash the stain off in the stream of buffered water until it has acquired a pinkish tinge. Do not tip off the stain, this will leave a deposit of stain on the blood film and will hamper microscopic examination





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Composition of buffered water:

- 1) Monobasic potassium phosphate. Anhydrous (KH₂PO₄) 6.63 gms
- 2) Dibasic sodium phosphate. Anhydrous (Na₂HPO₄) 2.56 gms
- 3) D/W (q.s.) 1000 ml

Note: Staining time may have to be adjusted according to the reaction of the stain. Reduce the time if overstained, increase the time if poorly stained.

Drying of blood film :

Shake off the buffered water adhering to the slide and set the slide in an upright position in a drying rack. Keep the smeared surface of the slide facing down. This will avoid picking up dust.

After complete drying, observe the stained slide under oil immersion lens.

Quality Control

Appearance : Dark blue coloured, clear solution.

Microscopic examination:

<u>Granulocytes</u>: These are cells with granulated cytoplasm which stain faint pink. These include Neutrophils, Eosinophils and Basophils.

<u>Neutrophils:</u> Pale pink cytoplasm with fine mauve coloured granules, include band and segmented forms (normally 3-4 lobed) of nucleus.

Eosinophils: Cytoplasm stains faint pink, contains large red orange granules and bilobed nucleus.

Basophils: Cytoplasmic granules appear large, dark blue black which fill the cell and obscular nucleus

<u>Lymphocytes</u>. Large size lymphocytes have clear blue cytoplasm on the margins of the nucleus. In smaller lymphocytes, dark violet coloured nucleus fills the entire cell and has a rim of clear cytoplasm.

Packaging

Product Name : Wright Stain Product Code : SI029 Available Pack sizes : 500ml/125ml

Further Information

For further information please contact your local MICROMASTER Representative.

MICROMASTER LABORATORIES PRIVATE LIMITED

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