PRODUCT SPECIFICATION SHEET

GIEMSA STAIN(SI015)

Use

Giemsa's Stain is used for blood staining and other purpose.

Principle

Giemsa stain is a mixture of methylene blue, eosin, and azure B. It is specific for the phosphate groups of DNA and attaches itself to where there are high amounts of adenine-thymine bonding.
Giemsa stain is a modified Romanowsky stain, very similar to Wright's stain and gives the same colour reaction with the cellular components of the blood. Giemsa stain is mainly used for staining of peripheral blood smears and specimens obtained from the bone marrow. It is used to obtain differential white blood cell counts. Giemsa stain is also used in cytogenetics to stain the chromosomes and identify chromosomal aberrations. It is commonly used for G-Banding (Geimsa-Banding).

The polychromic staining solutions (Giemsa, Wrights) 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
Giemsa Stain	3.8 g
Methyl Alcohol	250.0 ml
Glycerol	250.0ml

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. Fix films in methyl alcohol for 3 min.
2. Immerse the slide in the staining fluid containing 30 drops (0.67 ml) of Giemsa Stain (SI015) in 30 ml distilled water and stain it for 30-40 minutes
3. Wash with distilled water allowing the preparation to differentiate for 1 to 3 minutes.
4. Dry the film in air and examine.

PRODUCT SPECIFICATION SHEET

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:

MORPHOLOGY AND STAINING PROPERTIES

Malarial parasites	: clear red chromatin
Cytoplasm	: clear blue

Appearance of White Blood Cells (W.B.C.)

Nuclear & basophilic cytoplasmic components	: blue
Neutrophillic granules	: lilac
Eosinophillic granules	: orange
Mast cell granules	: deep blue-violet
Nucleoli	: blue-violet
Red cells	: Pink
Cytoplasm of mature monocytes	: grey-blue

Packaging

Product Name : **Giemsa Stain**
Product Code : **SI015**
Available Pack sizes : **500ml**

Further Information

For further information please contact your local MICROMASTER Representative.

MICROMASTER LABORATORIES PRIVATE LIMITED
Unit 38/39, Kalpataru Industrial Estate,
Off G.B. Road, Near 'R-Mall' , Thane (W) – 400607. M.S. INDIA.
Ph: +91-9320126789/9833630009/9819991103
Email:-sales@micromasterlab.com

PRODUCT SPECIFICATION SHEET

Disclaimer :

All Products conform exclusively to the information contained in this and other related Micromaster Publications. Users must ensure that the product(s) is appropriate for their application, prior to use. The information published in this publication is based on research and development work carried out in our laboratory and is to the best of our knowledge true and accurate. Micromaster Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are intended for laboratory, diagnostic, research or further manufacturing use only and not for human or animal or therapeutic use, unless otherwise specified. Statements included herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.