GIEMSA STAIN WITH BUFFER

METHOD – STAIN
PRODUCT CODE – ST33

ANAMOL
THE ORIGINAL MAKERS

INSTRUCTIONS FOR USE

INTENDED USE: Test for differential staining of cells for detection of parasites by Giemsa stain.

SUMMARY AND EXPLANATION

The diagnosis of infections caused by blood and tissue parasites is based on detection and identification of the parasites in stained films of peripheral blood or tissues. In 1970, Witlin introduced a water soluble Wright stain, consisting of two separate aqueous solutions. Giemsa Stain Kit is a modification of this formula which produces staining characteristics that parallel those of the conventional Wright stain.

PRINCIPLE

Smears are fixed using the Giemsa Fixative. Slides are immersed in Giemsa Reagent to differentially stain specific cellular components. The cellular components stain either basophilic (blue) or eosinophilic (orange granules). The color intensity can be varied by adjusting the staining time.

REAGENTS

Giemsa Reagent:	Giemsa stain in methanol.
Buffer	Phosphate buffer

PRECAUTIONS

This product is for in Vitro diagnostics use and should be used by properly trained individuals. Precautions should be taken against the dangers of microbiological hazards by properly sterilizing specimens, containers and media after use. Directions should be read and followed carefully.

STORAGE

Store product in its original container at room temperature until used. Keep container tightly closed during storage.

PRODUCT DETERIORATION

This product should not be used if:
1. The color has changed.
2. The expiration date has passed.
3. There are other signs of deterioration.

MATERIALS REQUIRED BUT NOT SUPPLIED

1. Fixative (Methanol).
2. Coplin jars or staining jars with covers.
3. Microscope slides
4. Microscope with oil immersion lens.
5. Immersion oil.
6. Fresh blood smears or other quality control slides.

SPECIMEN COLLECTION AND PREPARTION

Blood Specimens: For optimal stain results make smears from blood without anticoagulant, such as that obtained from a finger prick or ear lobe puncture. Blood obtained by vein puncture can be used. However, it is preferable to use the blood remaining in the needle because it is anticoagulant free. If smears cannot be made immediately, EDTA is the anticoagulant of choice. Fresh blood smears provide optimum results.

Thin Smears: The thin smear is prepared in the same manner as for a differential leukocyte count. Place one drop of blood near one end of a glass microscope slide. Hold a second spreader slide at a 40-45 ° angle, draw into the drop of blood, and allow it to spread to the width of the slide. Rapidly and smoothly push the spreader slide to the other end of the slide, pulling the blood behind it. A well-prepared smear is thick at one end and thin at the other.

REAGENT PREPARATION:

Preparation of working Buffer
Buffer 1 ml + 9 ml Distilled water.
Preparation of working Giemsa stain
Giemsa stain 1ml + 9 ml working buffer

PROCEDURE

1. Pour Fixative on Slides. Drain excess. Dry in Air.
2. Pour Working Giemsa stain on the smear keep for 20 minutes.
3. Wash slide with distilled water.
4. Allow the smear to air dry.
   Examine under oil immersion microscope.

RESULTS AND INTERPRETATION

Refer to appropriate references for appearance of blood and tissue parasites and/or differential characteristics of Giemsa stained blood and tissue smears. After staining as specified under directions cells were observed under microscope.

RESULTS

Neutrophilic granules	Purple
Eosinophilic granules	Orange
Lympocytes	Dark Blue
Mast cell granules	Deep blue-violet
Nucleoli	Blue-violet
Red cells	Pink
Cytoplasm of mature monocytes	Grey blue

QUALITY CONTROL

All lot numbers of Giemsa Stain Kit have been tested and found to be acceptable. The patient smear can serve as quality control to verify the efficacy of the staining reagents. If the leukocytes and erythrocytes exhibit typical colours, parasites can be expected to stain correctly. In addition, a smear made from a patient blood specimen (previously identified as positive) with at least one parasite per oil immersion field may also be included to verify differential staining characteristics and compare with specimen stain results. If aberrant quality control results are noted, patient results should not be reported.

BIBLIOGRAPHY

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3. Isenberg, H.D. 2004, Clinical Microbiology Procedures Handbook. 2nd ed., Vol.2. ASM Press, Washington,D.C.
4. Murray, P.R. E.J. Baron. J.H. Jorgensen, M.L. Landry, and M.A. Pfaller 2007, Manual of Clinical Microbiology. 9th ed. ASM Press, Washington D.C.

SYMBOLS: Read Instruction for use | IVD In Vitro Diagnostic Use Only | Manufactured by | Expiry Date | Storage Temperature

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ISO 9001 : 2015
ISO 13485 : 2003
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