FIELD STAIN

IVD

PRODUCT CODE
BS003

INTENDED USE
Field stain is a histological method for staining of blood smears. It is used for staining thick and thin blood films to discover malarial parasites.

REAGENT COMPOSITION
SOLUTION 'A': Buffered Azure solution
SOLUTION 'B': Buffered Eosin solution
SOLUTION 'C': Methanol solution (upon request)

PRINCIPLE
Field Stains contain Methylene blue / azure and Eosin. These basic and acidic dyes induce multiple colors when applied to cells the fixative, methanol does not allow any further change in thin film slide. The basic component of white cells (cytoplasm) is stained by acidic dye and they are described as eosinophilic or acidophilic the acidic component (nucleus with nuclei acid) takes blue to purple shades of the basic dye and is called basophilic. The neutral component of the cells is stained by both the dyes.

REAGENT PREPARATION
Reagents are ready to use. It is recommended to filter all stain before use.

REAGENT STORAGE AND STABILITY
Both solutions are stable up to the stated expiry date when stored at 15-25°**C.** Keep tightly closed to prevent air oxidation.

SPECIMEN TYPE
Blood sample

ADDITIONAL REAGENTS REQUIRED BUT NOT PROVIDED
Buffered water pH 7.2, Distilled Water .

STAINING PROCEDURE FOR THICK FILM
1. Prepare a thick blood film, * 2 / Limitations
2. Flood the slide with Field Stain A for 3 seconds.
3. Wash gently in buffered water pH 7.2 or distilled water for 5-10 seconds or until stain ceases to run off the slide.
4. Flood slide with Field Stain B for 3 seconds.
5. Wash gently in buffered water pH 7.2 or distilled water for 10 seconds or so.
6. Shake off excess water and stand upright to allow water drain until completely dry. DO NOT BLOT.
7. Examine under oil immersion.

INTERPRETATION

Cytoplasm of parasite	-	Blue-mauve
Chromatin of parasite	-	Dark Red
Schüffner's / James' dots	-	Pale red
Nuclei of Neutrophils	-	Dark purple
Granules of Eosinophils	-	Red

STAINING PROCEDURE FOR THIN FILM
1. Prepare a thin blood film on a microscope slide.
2. Air dry the film .
3. Fix in methanol (SOLUTION 'C) for one minute.
4. Cover the slide in with 1 mL Field Stain B (1 in 4 in buffered water pH 7.2 or distilled water).
5. Immediately add an equal volume of Field Stain A and mix.
6. Leave stain for 1 minute.
7. Rinse the slide with distilled water, drain and dry.
8. Examine under oil immersion.

INTERPRETATION

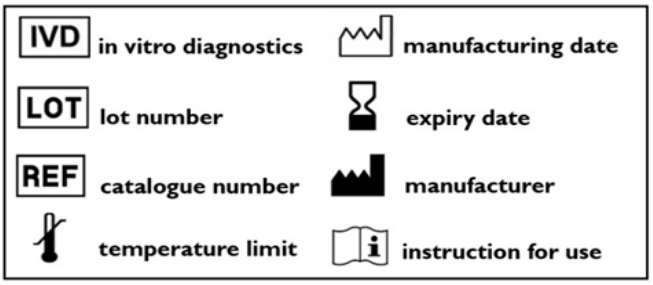
Cytoplasm of parasite	-	Blue-mauve
Chromatin of parasite	-	Dark Red
Schüffner's / James' dots	-	Red
Nuclei of Neutrophils	-	Dark purple
Granules of Eosinophils	-	Red
Red cells	-	Grey to pale pink

WARNING AND PRECAUTIONS
In Vitro Diagnostics use only. Read the label before opening the container. Wear protective gloves / clothing / safety glass / face mask. Follow good microbiological lab practices while handling specimens.

QUALITY CONTROL
Positive: Plasmodium species
Negative: A proven negative smear may be used as the negative control

LIMITATIONS
1. Films for malaria must be made immediately or no longer than 3-4 hours.
2. For preparing thick film, allow the film to dry for 30 minutes at least. Ensure film is completely dry before staining. Use a slide warmer to dry the smear to reduce drying time. Absolutely fresh films on the slide can wash off during staining, be aware of this and ensure the film is thoroughly dry.
3. Methanol used as fixative should be completely water free, as little as 1 % water may affect the appearance of the films.
4. The red cells will also be affected by traces of detergent on inadequately washed slides.
5. Sometimes when thick films are stained they become overlaid by residue of stain or spoil by the envelopes of the lysed red cells.

SYMBOLS ON LABELS



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