

Leishman Stain Kit

Intended use

Ready to use combi kit each of Leishman Stain and Phosphate Buffer (pH 7.0) used in microscopy for staining of blood smears.

Summary

Leishman stain is used in microscopy for staining blood smears. It provides excellent stain quality. It is generally used to differentiate and identify leucocytes, malaria parasites, and Trypanosoma. It is based on a methanolic mixture of "polychromed" methylene blue. (i.e., demethylated into various azures) and eosin. The methanolic stock solution is stable and also serves the purpose of directly fixing the smear and eliminating a prefixing step. The buffer system consists of two salts: sodium hydrogen phosphate (Na_2HPO_4) and potassium dihydrogen phosphate (KH_2PO_4). Due to their concentration and pH, they provide a stable environment for staining.

Principle

Leishman stains contain methylene blue dye, a basic dye, which gives colour to an acidic component and eosin dye, an acidic dye, which gives colour to a basic component. These dyes differentiate the different components of blood. Leishman's Stain belongs to the group of Romanowsky stains. For the detection of malaria parasite Leishman staining seems more sensitive than e.g., Field's stain.

Reagents / Contents

Leishman Stain

Leishman stain	0.15 g
Methanol, absolute	100 mL

Phosphate Buffer (pH7.0)

KH_2PO_4	8 mM
Na_2HPO_4	6 mM
Final pH (at 25°C)	7.0 \pm 0.2

**Formula adjusted, standardized to suit performance parameters

Appearance:

Leishman Stain: Blue colour solution

Phosphate Buffer: Clear colourless solution

Storage and stability

Store at 15°C - 30°C away from bright light. Use before expiry date on label.

Materials required but not provided

Clean grease-free glass slide, loops, staining rack, blotting paper, immersion oil (Cat. No. 207090110025), and microscope.

Type of Specimen

Clinical specimen: Peripheral Blood samples.

Procedure

1. Use blood smears that are as thin as possible and air-dried.
2. Fully cover the smear with Leishman stain.
3. Keep for 2-3 minutes.
4. Fully cover the smear with phosphate buffer provided with the kit.
5. Keep for 15 minutes.
6. Dry the slides using blotting paper and air-dry.
7. Observe under microscope, 40X and 100X under oil immersion lens.

Interpretation of results

Erythrocytes:	Pink
Cores of lymphocytes:	Deep, dark blue to blue-violet
Cytoplasm of lymphocytes:	Light blue
Nuclei of neutrophil:	Deep blue to blue-violet
Granules of neutrophilic:	Red
Cores of eosinophil leukocytes:	Blue violet
Granules of eosinophilic leukocytes:	Deep red
Cores of basophilic leukocytes:	Blue violet

Warranty

This product is designed to perform as described on the label and pack insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product	Pack Size
207120670250	Leishman Staining Kit	2 x 250 mL
207120670500		2 x 500 mL
207120420250	Leishman Stain	250 mL
207120420500		500 mL
207120421000		1000 mL

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
