Leishman's Stain

Eosin-Methylene blue according to Leishman, Leishman's Eosin-Methylene blue
Product No. A4277

Description

Leishman's stain is applied in conventional staining techniques to uniformly stain chromosomes. These techniques leave centromers constricted, thus enabling the measurement of chromosome length, centromeric position, and arm ratio.Slides can be easily destained and banded by most banding procedures. Orcein-stained chromosomes cannot be destained!

Leishman's stain belongs, as Giemsa and Wright's stain, to the group of Romanovsky stains. It is considered as an easy to do technique which gives a fairly acceptable contrast.

For the detection of malaria parasite Leishman staining seems more sensitive than e.g. Field's stain.


Storage

RT (keep away from moisture)

Preparation of Leishman’s Stain solution:

Mix and dissolve 0.15 g of Eosin-Methylene blue (Leishman’s stain A4277) in 100 ml Methanol dried p.A. (AppliChem product No. A0556) at 56°C. When the stain is dissolved completely remove the solution from the heater. (Alternatively, dissolve at RT over night. Cover container with Parafilm in order to prevent contamination by moisture). After the solution reached RT, clear the solution by using a dry Whatman paper filter. Collect filtered solution in a clean and dry brown glass bottle. Age the solution at least 2-3 days before using it the first time.

Store Leishman’s Stain solution at RT in tightly sealed bottles, protected from light and heat. Do not store the solution near bottles containing acid. If stored correctly Leishman’s Stain solution is stable for approx. 3 months.

Example Staining Protocol

Blood stainings according to Leishman (covering technique)

1. Use smears that are as thin as possible and air-dried.
2. Fully cover the smears with Leishman's Stain solution. Stain for 2 minuted.
3. Rinse thoroughly with distilled water.
4. Dry the slides using blotting paper and air-dry.
5. (optional) For fixing, include the slides in balsam (Canada balsam genuine AppliChem product No. A0569) or neutral Malinol.

Expected results:

Erythrocytes: light pink to brown
Cores of lymphocytes: deep, dark blue to blue-violet
Cytoplasm of lymphocytes: light blue
Nuclei of neutrophil, polymorphonuclear leukocytes: a deep blue to blue-violet
Granules of neutrophilic polymorphonuclear leukocytes: red
Cores of eosinophil leukocytes: blue violet
Granules of eosinophilic leukocytes: deep red
Cores of basophilic leukocytes: blue violet