

medilines

Peroxidase Colour

Myeloperoxidase

DESIGN TO DEMONSTRATE Peroxidase granules in Leukocytes, especially in Neutrophils

REAGENTS & PREPARATIONS

Peroxidase Fixative : Ready to use.
Peroxidase Colour 1 : Ready to use.
Peroxidase Colour 2 : Prepare fresh. Mix **Peroxidase Colour 2** with **Distd Water** in equal Volume.

SPECIMEN COLLECTION & PREPARATION Freshly prepared whole or anticoagulated (Heparin/Oxalate/EDTA) blood or bone marrow films may be used. Peroxidase is unstable in the light, but unfixed films are satisfactory for as long as 2 weeks if kept in the dark.

FIXATION Fix the air-dried smear with **Peroxidase Fixative** at 2-6°C for two minute with gentle agitation followed by thorough rinsing in distilled water.

STAINING PROCEDURES

1. Stain slide in **Peroxidase Colour 1** by immersion 30-60 seconds and rinse in distilled water for 30-60 seconds.
2. Counter Stain with diluted **Peroxidase Colour 2** for 5 minutes and rinse in distilled water.
3. After air-drying, examine under the microscope. (Slides may be mounted in a xylene based mounting medium.)

EXPECTED RESULTS

Cells of Granulocytic series contain Peroxidase activity – Yellowish Green to Blue and Brownish Green

Monocytes – Show a weak reaction varying from pale brown granules to diffuse cytoplasmic staining

Other cells (Basophils, Lymphocytes and Erythroid) – No stain

Nucleus and Background Cytoplasm – red

QUALITY CONTROL Normal air-dried smears serve as adequate controls

NOTES

- Peroxidase activity may be absent in some toxic neutrophils infection

Reference : *Cytochemical Stain*