



METHYL GREEN-PYRONIN METHOD (MGP)

IVD

In Vitro Diagnostic Medical Device

Stability: 2 years under recommended storage conditions.

Storage conditions: Store at 15 - 25 °C, protected from fire and sunlight. Packing to be stored tightly closed.

Procedure duration: ~15 min.

Content:

Reagents:

Methyl green-Pyronin working solution

Application:

Methyl Green-Pyronin (MGP) is used to demonstrate DNA and RNA in cells from tissue Sections (formalin fixed) and cytologic preparations (alcohol-ether fixed). Pyronin stains RNA finds in red. Methyl green stains DNA bluish-green.

N.B!: The clinical interpretation of any staining, or its absence, should be complemented by morphological studies and proper controls, and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

All reagents have been optimally prepared for use and require no mixing or diluting.

Method:

Positive control slides, such as normal lymph node or tonsil should be included in each run!

1. Deparaffinize and bring sections to water.
2. Stain in MGP working solution for 2-5 min (due to laboratory requirements).
3. Blot slides with bibulous paper and air dry for 5 min.
4. Differentiate slides individually in distilled water – 1-2 fast dips.
Note: Increasing stain time intensifies Pyronin (Red); decreasing stain time intensifies Methyl Green (Blue-green to green)
Note2: Check results microscopically. If nuclear chromatin appear too bluish-green – 2 fast dips in distilled water. If it appear too red – 3 fast dips each in 2 changes of cold (4- 5°C 80% Ethanol).
5. Dehydrate in:
 - Acetone: 2 or 3 quick dips
 - Acetone/Xylene mixture: 2 changes of 1–2 min each
 - Xylene: 2 changes of 1–2 min each
6. Mount in resinous medium (optional) and examine.

Results:

RNA – pink to red

Cytoplasm of plasma cells — Red

DNA – blue-green to green

References:

1. Luna LG: Histopathologic Methods and Color Atlas of Special Stains and Tissue Artifacts; American Histolabs Inc; 1992, p. 261.
2. Laboratory methods in histotechnology – E. Prophet et al, 1994, Armed Forces Institute of Pathology, p.143-44
3. DAKO

Producer: **Emmonya Biotech Ltd, Chelopech, Sofia area, Bulgaria**