

INTENDED USE

Methyl Green-Pyronin Stain is for identification of Plasma Cells in Tissue Sections. Methyl Green-Pyronin Stain is for "In Vitro Diagnostic use."

Methyl Green-Pyronin (MGP) is used to demonstrate plasma cells and RNA in tissue sections and cytologic preparations. The procedure is a simplified method for use with formalin fixed tissue or alcohol-ether fixed smears. Pyronin stains the cytoplasm of plasma cells and most nucleoli red. Methyl green stains DNA bluish-green, but the presence of crystal violet in solution makes this solution unsuitable for the reliable demonstration of DNA.

REAGENTS

METHYL GREEN-PYRONIN (MGP) SOLUTION, Catalog No. HT7016-500 ml
Methyl green (certified), 0.012%, pyronin Y (certified), 0.01% methanol, 0.75%, in deionized water.

STORAGE AND STABILITY:

Methyl Green-Pyronin (MGP) Solution should be stored at room temperature (18–26°C). Reagent label bears expiration date.

PREPARATION:

Methyl Green-Pyronin Solution is ready to use.

PRECAUTIONS:

Normal precautions exercised in handling laboratory reagents should be followed. Dispose of waste observing all local, state, provincial or national regulations. Refer to Material Safety Data Sheet and product labeling for any updated risk, hazard or safety information.

PROCEDURE

SPECIMEN COLLECTION:

It is recommended that specimen collection be carried out in accordance with CLSI document M29-A3. No known test method can offer complete assurance that blood samples or tissue will not transmit infection. Therefore, all blood derivatives or tissue specimens should be considered potentially infectious.

Formalin fixed paraffin sections cut at 5–6 microns may be used.^{1,2}

SPECIAL MATERIALS REQUIRED BUT NOT PROVIDED:

Positive control slides, such as normal lymph node or tonsil should be included in each run
Microscope
Microscope slides, coverslips and staining dishes
Acetone, ACS Reagent
Xylene or xylene substitute

NOTES:

The data obtained from this procedure serves only as an aid to diagnosis and should be reviewed in conjunction with other clinical diagnostic tests or information.

PROCEDURE:

1. Deparaffinize tissue and hydrate to deionized water.
2. Stain in Methyl Green-Pyrouin (MGP) Solution for 5 minutes.
3. Rinse thoroughly in deionized water.
4. Dehydrate and clear using acetone, acetone/xylene (1:1) and xylene.^{4,5} Mount.

Acetone:	2 or 3 quick dips
Acetone/Xylene:	2 changes of 1–2 minutes each
Xylene:	2 changes of 1–2 minutes each

PERFORMANCE CHARACTERISTICS

Nucle	—	Purple to bluish
Nucleoli	—	Red
Cytoplasm of plasma cells	—	Red
RNA	—	Red

If observed results vary from expected results, please contact Sigma-Aldrich Technical Service for assistance.

REFERENCES

1. Brown G: A modification of methyl green-pyronin stain for plasma cells and RNA in formalin fixed tissue. *J Histotech* 2:19, 1979
2. *Diagnostic Cytology and Histopathologic Bases*, 3rd ed., Vol 2, Edited by LG Koss, Lippincott, Philadelphia, 1979
3. *Theory and Practice of Histotechnology*. Edited by DC Sheehan and BB Hrapchak, 2nded. Mosby, St. Louis, MO, 1980, p 151
4. Luna, Lee G., *Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology*, Third Edition, McGraw-Hill Book Company, New York 1968
5. *Theory and Practice of Histotechnology*. Edited by DC Sheehan and BB Hrapchak, 2nded. Mosby, St. Louis, MO, 1980, p 106



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