
MGP STAIN - AMERICAN HISTOLOGY REAGENT COMPANY

PURPOSE: The nuclear chromatin in the nucleus is composed of nucleoproteins. The two types of nucleic acids are deoxyribonucleic acid (DNA), found in the nucleus, and ribonucleic acid (RNA), found in the nucleolus and cytoplasm. DNA functions in cell heredity, and synthesis of RNA. RNA functions principally in protein synthesis.

PRINCIPLE: DNA stains with methyl green, RNA is colored red with pyronine.

CONTROL: Any well fixed tissue containing plasma cells, normal lymph node.

FIXATION: 10% formalin

TECHNIQUE: Cut paraffin sections 4 μ .

EQUIPMENT: coplin jars, rinse all glassware in DI water, bibulous paper.

REAGENTS:

MGP Stain:
Purchased through American
Reagent Co.

2-Butoxy Ethanol
(Tert Butyl Alcohol)

CAUTION: Avoid contact and inhalation.

Store in the refrigerator.

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Distilled water

Ice cold - place 100.0 ml in the
freezer for 15-30 minutes.

SAFETY: Wear gloves, goggles and lab coat. Avoid contact and inhalation.

2-Butoxy Ethanol; Vapor; irritant to respiratory passages. Liquid; irritant to skin.

PROCEDURE:

1. Deparaffinize and hydrate to distilled water.
2. Methyl Green-Pyronine stain, 1 hour, 37°C.
3. Rinse quickly in ICE COLD distilled water, 2 dips.
4. Blot
5. -Butoxy Ethanol, two changes, agitating slides, two minutes each.
6. Check microscopically for red granules in the cytoplasm of plasma cells.
7. Clear in xylene, coverslip.

RESULTS:

DNA green to blue
RNA red

REFERENCE:

American Reagent Company, Stockton, Calif.
Crookham,J, Dapson,R, Hazardous Chemicals in the Histopathology
Laboratory, 2nd ED, 1991, Anatech

Prepared: _____ By: _____

Approved: _____ By: _____

PROCEDURE CARD

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