

METHYL GREEN powder dye, C.I. 42590

IVD *In vitro* diagnostic medical device

CE

Methyl Green, Ethyl Green, BSC certified dye

For Methyl Green-Pyronine Y staining, for mitochondrial staining according to Altmann

INSTRUCTIONS FOR USE

REF Catalogue number: MGR-P-25 (25 g)

Introduction

Histology, cytology and other related scientific disciplines study the microscopic anatomy of tissues and cells. In order to achieve a good tissue and cellular structure, the samples need to be stained in a correct manner. Methyl Green powder dye is used in various staining methods in microscopy. It is also used with Pyronine Y dye for one stage DNA (green) and RNA (red) staining method. It is also used as a counterstain with other reactions, such as demonstration of enzymatic activity and for mitochondrial staining according to Altmann.

Product description

- **METHYL GREEN** - Biological Stain Commission (BSC) certified powder dye for preparing the solution for mitochondrial staining according to Altmann.

Other preparations and reagents used in preparing the dye solution:

- Microscopy powder dyes, such as BioGnost's Pyronine Y dye (product code PY-P-10)
- Chloroform (CHCl₃)
- Anhydrous sodium acetate for buffer solution (CH₃COONa)
- Acetic acid, 0.1 M (CH₃COOH)

Preparing the dye solution

Acetate buffer:

0.1 M sodium acetate solution:

- Dissolve 8.2 g of sodium acetate in 1000 ml of distilled/demineralized water.

Mix 56.6 ml of 0.1 M sodium acetate solution and 43.4 ml of 0.1 M acetic acid.

Methyl Green-Pyronin G dyes solution:

- Dissolve 2 g of Methyl Green dye in 100 ml of distilled/demineralized water. Isolate using chloroform and filter.
- Dissolve 5 g of Pyronine Y dye in 100 ml of distilled/demineralized water. Isolate using chloroform and filter.

Basic solution:

- Mix 10 ml of Pyronine Y solution and 17.5 ml of Methyl Green solution with 250 ml of distilled/demineralized water.

Stain working solution:

- Mix basic solution 1:1 with acetate buffer with pH 4.8.

Results

Chromatin - blue-green

Nucleoli - red

Cytoplasm - pink-red

Note

The mentioned formulation is only one of the ways of preparing the dye solution. Methyl Green dye is most commonly used for Methyl Green-Pyronine Y staining. Depending on personal requests and standard laboratory operating procedures, the dye solution can be prepared according to other protocols.

Preparing the sample and diagnostics

Use only appropriate instruments for collecting and preparing the samples. Process the samples with modern technology and mark them clearly. Follow the manufacturer's instructions for handling. In order to avoid mistakes, the staining procedure and diagnostics should only be conducted by authorized and qualified personnel. Use only microscope according to standards of the medical diagnostic laboratory. In order to avoid an erroneous result, a positive and negative check is advised before application.

Safety at work and environmental protection

Handle the product in accordance with safety at work and environmental protection guidelines. Used solutions and out of date solutions should be disposed of as special waste in accordance with national guidelines. Chemicals used in this procedure could pose danger to human health. Tested tissue specimens are potentially infectious. Necessary safety measures for protecting human health should be taken in accordance with good laboratory practice. Act in accordance with signs and warnings notices printed on the product's label, as well as in BioGnost's material safety data sheet.














Storing, stability and expiry date

Keep Methyl Green powder dye in a tightly closed original package at temperature between 15°C and 25°C. Keep in dry places, do not freeze and avoid exposure to direct sunlight. Expiry date is stated on the product's label.

References

1. Conn, J. (1977): Biological Stains, 9th ed. Baltimore: Williams and Wilkins Co.
2. Carson, F. L., Hladik, C. (2009): Histotechnology: A Self-Instructional Text, 3rd ed., Chicago: ASCP Press.
3. Altmann, R. (1894): Die Elemeiuorganismen und ihre Beziehungen zu den Zellen, Veit et Co., Leipzig.

MGR-P-25, V2-EN1, 30 September 2015, VR/IŠP

	Refer to the supplied documentation		Storage temperature range		Number of tests in package		Product code		European Conformity
	Refer to supplied instructions		Keep away from heat and sunlight		Valid until		Lot number		Manufacturer
	For <i>in vitro</i> diagnostic use only		Keep in dry place		Caution - fragile				

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