HISTANOL M

IVD In vitro diagnostic medical device CE

Methyl alcohol for use in histology and cytology

INSTRUCTIONS FOR USE

REF Product code: HM-1L (1000 ml) HM-5L (5000 ml) HM-10L (10000 ml)

Introduction

BioGnost's Histanol M is an ideal dehydrating agent and fixative in many scientific fields, such as histology, cytology, immunocytochemistry and other related fields in which quality microscopy is a priority. Methanol is the simplest of all alcohols and it fixates proteins by denaturation and subsiding. It is often combined with ethanol or acetic acid, depending on the sample and method used. Methanol is widely known as a blood smear fixative before Romanowsky dyes staining in differential hematology.

Product description

- **HISTANOL M** - Alcohol solution of methanol for histological and cytological usage.

Other slides and reagents that may be used in staining:

- Polychromatic Romanowsky reagents, such as BioGnost's May-Gruenwald and Giemsa solutions
- Glass slides used in hematology, such as VitroGnost STANDARD GRADE or high quality glass slides used in histopathology and cytology, such as VitroGnost SUPER GRADE or one of more than 30 models of VitroGnost glass slides
- BioGnost's Buffer tablets, pH 6.8 or 7.2
- Fixative and differentiation agent, such as BioGnost's Histanol and Acetic acid for histology

Preparation of solutions

- Buffer solution, pH 6.8
  Dissolve 1 pH 6.8 buffer tablet in 1 liter of distilled water while stirring
  Note: During the staining process it is possible to use pH 7.2 buffer solution or a combination of pH 6.8 and 7.2 buffer solutions, and the process's results can differentiate in shift toward red or blue on the color spectrum
- Giemsa working solution
  Add 10 ml of Giemsa solution to 190 ml of pH 6.8 buffer solution, stir well and let it sit for 10 min. Filter if necessary

Blood smear staining procedure using the May-Gruenwald Giemsa (Pappenheim) method

- Prepare the peripheral blood smear by draining blood from a fresh blood sample
- Let the smear dry
- Immerse the dried smear in the May-Gruenwald solution for 3 min
- Rinse the smear in pH 6.8 buffer solution
- Immerse the smear in the working Giemsa solution for 15-20 min
- Rinse the smear in pH 6.8 buffer solution
- Dry the slide

Result (pH 6.8)

Nucleus - purple
Lymphocyte plasma - blue
Monocyte plasma - grey-blue
Neutrophil granule - light purple
Eosinophil granule - red to dark purple
Basophil granule - dark purple to black
Thrombocytes - purple
Erythrocytes - reddish

Note

Time periods of staining processes are not entirely standardized and they approximately correspond to clinical and laboratory practical experience. Intensity of staining depends on the period of immersion in the dye. Real staining protocol depends on personal requests and priorities.

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.

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. Reagents 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 Histanol M in a tightly closed original package at temperature between +15°C and +25°C. Do not keep in cold places, do not freeze and avoid exposing to direct sunlight. Date of manufacture and expiry date are printed on the product's label.

References

1. Beesley, J. E. (1989): Colloidal gold: A new perspective for cytochemical marking. Royal Microscopy Handbook #17. Oxford Univ. Press. p48.
2. Haas, G. G. Jr. et al. (1988): The effect of fixatives and/or air-drying on the plasma and acrosomal membranes of human sperm. *Fertil Ster.* 50(3); pp487-492.
3. Hoetelmans, R. W. et al. (2001): Effects of acetone, methanol, or paraformaldehyde on cellular structure, visualized by reflection contrast microscopy and transmission and scanning electron microscopy. *Appl. Immunohistochem. Mol. Morphol.* 9(4); p 346-351.
4. Kumarasinghe, M.P. (1997): Methanol as an alternative fixative for cytological smears. *Malays. J. Pathol.* 19(2); p137-140.

HM-X, V5-EN6, 01 July 2019, IŠP/VR

	Refer to the supplied documentation
	Refer to supplied instructions
IVD	For *in vitro* diagnostic use only

°C	Storage temperature range
	Keep away from heat and sunlight
	Keep in dry place

Σ	Number of tests in package
	Valid until
	Caution - fragile

REF	Product code
LOT	Lot number

CE	European Conformity
	Manufacturer

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CE