BIOGNOST®

FUCHSIN ACID powder dye, C.I. 42685

IVD *In vitro* diagnostic medical device CE

Acid Fuchsine, Acid Violet 19, BSC certified dye

For staining of connective tissues using Van Gieson and Mallory methods

INSTRUCTIONS FOR USE

REF Catalogue number: FA-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. Fuchsin Acid is a triarylmethane dye that can be used for trichrome staining of connective tissues according to Mallory and Van Gieson. Mallory developed staining method for visualizing collagen connective tissues, modified and advanced during time. If the sample is fixated in Zenker's solution, it enables quality separation of individual tissue components. The Van Gieson dye solution is used as a contrasting dye in the mentioned method. Picric acid in the solution is the source of acid pH value and functions as cytoplasmic and muscle dye.

Product description

- **FUCHSIN ACID** - Biological Stain Commision (BSC) certified powder dye for creating solution for connective tissues staining according to Van Gieson and Mallory methods.

Other preparations and reagents used in preparing the dye solution:

- Phosphotungstic acid ($H_3PW_{12}O_{40}·xH_2O$)
- Picric acid ($C_6H_3N_3O_7$)
- Microscopy powder dyes, such as BioGnost's Orange G dye (product code OG-P-25, OG-P-100)
- Microscopy powder dyes, such as BioGnost's Aniline Blue dye (product code CAB-P-25G)

Preparing the solutions for staining

Mallory's dyes for connective tissues:

- 0.25% solution of Fuchsin Acid dye
  Dissolve 0.25 g of Fuchsin Acid dye in 100 ml of distilled/demineralized water.
- Solution of Aniline Blue WS-Orange G dye
  Dissolve 0.5 g of Aniline Blue WS powder dye, 2 g of Orange G powder dye and 1 g of phosphotungstic acid in 100 ml of distilled/demineralized water.
- Van Gieson's dye for connective tissues and collagen:
  Dissolve 0.5 g of Fuchsin Acid dye in 500 ml of concentrated picric acid.

Result

Connective, collagen, reticular tissue - dark blue
Acid mucosubstances - blue
Muscle tissue - bright orange
Chromatin - red-yellowish-brown
Erythrocytes - red-orange

Note

The mentioned formulation is only one of the ways of preparing the dye solution. Fuchsin Acid dye is most commonly used according to Mallory and Van Gieson methods. 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 Fuchsin Acid 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 exposing 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. Kiernan, J. A. (2008): Histological and Histochemical Methods, Theory and Practice, 4th ed., Banbury: Scion Publishing Ltd.
3. Carson, F. L., Hladik, C. (2009): Histotechnology: A Self-Instructional Text, 3rd ed., Chicago: ASCP Press

FA-P-25, V3-EN3, 30 September 2015, VR/IŠP

Refer to the supplied documentation	Storage temperature range	Number of tests in package	REF Product code	European Conformity	BIOGNOST Ltd. Medjugorska 59 10040 Zagreb CROATIA www.biognost.com	CE
Refer to supplied instructions	Keep away from heat and sunlight	Valid until	LOT Lot number	Manufacturer		
IVD For *in vitro* diagnostic use only	Keep in dry place	Caution - fragile				