

FUCHSIN BASIC - SCHIFF powder dye, C.I. 42500

IVD *In vitro* diagnostic medical device

CE

**Basic fuchsin for Schiff, Pararosaniline HCl, Basic Red 9, BSC certified powder dye
For PAS staining, DNA staining according to Feulgen, staining acid resistant bacteria**

INSTRUCTIONS FOR USE

REF Catalogue number: FBS-P-25 (25 g) FBS-P-50 (50 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 Basic-Schiff dye is used for DNA staining according to Feulgen and for PAS staining. PAS (periodic acid-Schiff) staining is one of the most commonly used staining methods used in histology. Using this method the material is treated with periodic acid, during which 1,2-glycols oxidate to aldehydes. During reaction with the Schiff reagent aldehydes turn bright red. The Feulgen reaction is based on mild hydrolysis of DNA molecules by using hydrochloric acid. Hydrolysis creates aldehyde groups that can be visualized with the Schiff reagent.

Product description

- **FUCHSIN BASIC-SCHIFF** - Biological Stain Commission (BSC) certified powder dye for preparing the solution for use in histology.

Other preparations and reagents used in preparing the dye solution:

- Hydrochloric acid (HCl)
- Sodium bisulfite ($\text{Na}_2\text{S}_2\text{O}_5$)
- Activated carbon

Preparing the solutions for staining

- Dissolve 0.5 g of Fuchsin Basic-Schiff dye in 15 ml of hydrochloric acid.
- Dissolve 0.5 g of sodium bisulfite in 85 ml of distilled/demineralized water.
- Mix both solutions and leave them to stand for 24 hours at room temperature.
- Add 0.3 g of activated carbon, shake vigorously for 15 seconds, then filter.
- The solution is at first pink, during short period of time it turns colorless.

Note: Store the solution in a brown glass bottle in a freezer.

Result

Nucleus - blue

Polysaccharides, glycogen, mucoproteins,
neutral mucopolysaccharides, glycoproteins,
glycolipids, phospholipids, basement membranes, collagen - purple

Note

The mentioned formulation is only one of the ways of preparing the dye solution. Fuchsin Basic-Schiff dye is the most commonly used according to Feulgen and for PAS 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. Both positive and negative controls are recommended before applying.

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 which is available on demand.

Storing, stability and expiry date

Keep Fuchsin Basic-Schiff powder dye in a tightly closed original package at room temperature. 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

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	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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