ORANGE G powder dye

IVD In vitro diagnostic medical device CE

Acid Orange 10, Acid Fast Orange G, C.I. 16230, BSC certified stain
For staining keratin according to Papanicolaou, hematoxylin counterstain

INSTRUCTIONS FOR USE

REF Product code: OG-P-25 (25 g) OG-P-100 (100 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. Orange G powder dye is used in various staining methods in microscopy. It is a component of many biological dyes, usually as a background dye or cytoplasmic dye, and the most commonly used method of staining cytological samples is according to Papanicolaou. During the first step of staining, nuclei are being stained blue, dark purple or black using hematoxylin. Second step consists of cytoplasmic staining using orange solution, and targeted structures are stained orange in various intensities. During the third step the so-called polychromatic solution is used - a mixture of eosin, Light Green S.F. and Bismarck Brown dye. In histopathology Orange G is a part of the Mallory connective tissues dye.

Product description

- **ORANGE G** - Biological Stain Commission (BSC) certified powder dye for preparing the dye solution for Papanicolaou and Mallory dyes

Other preparations and reagents used in preparing the dye solution:

- Phosphotungstic acid ($H_3PW_{12}O_{40}\cdot xH_2O$)
- 96% ethanol (C_2H_5OH)

Preparing the dye solution

- Dissolve 0.5 g of Orange G dye in 100 ml of 96% ethanol
- With constantly stirring add 0.015 g of phosphotungstic acid and continue stirring until it dissolves
- Filter before use

Result

Results depend on staining method applied and they vary between different modifications of the same method.

Note

The mentioned formulation is only one of the ways of preparing the dye solution. Orange G is the most commonly used dye in the Papanicolaou and Mallory 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 the Orange G powder dye in a tightly closed original package at temperature between 15°C and 25°C. Do not freeze and avoid exposing to direct sunlight. Date of manufacture and expiry date are printed 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. Papanicolaou G. N. (1941): Some improved methods for staining vaginal smears, Journal of Laboratory and Clinical Medicine 26:1200-1205
4. Papanicolaou G. N. (1942): A new procedure for staining vaginal smears, Science 95:438-439
5. Mallory F. B., Wright, J. H. (1897): Pathological Technique: A practical manual for workers in pathological histology and bacteriology including directions for the performance of autopsies and for clinical diagnosis by laboratory methods.

OG-P-X, V4-EN4, 2 Feb 2015, VR/IŠP

Refer to the supplied documentation	Storage temperature range	Number of tests in package	REF	Product code	CE	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						