

TOLUIDINE BLUE O, C.I. 52040

IVD *In vitro* diagnostic medical device



Basic Blue 17, Tolonium Chloride, BSC certified stain
For staining mast cells, cartilage and Nissl substance in spinal cord

INSTRUCTIONS FOR USE

REF Product code: TB-P-25 (25 g) TB-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. Toluidine Blue O powder dye is used in various staining methods in microscopy. It is a thiazine dye, which makes it especially suitable for staining nuclei of histology materials. It is used to display metachromasia, an occurrence possible while using diluted solutions for staining that contain only stain monomers. Metachromatic staining is most commonly used for mucosubstances, especially sulfate mucopolysaccharides, cartilage, cylindrical cells and mastocyte granules. It is used for displaying amyloids, nuclei, plant DNA and for staining frozen sections and animal material.

Product description

TOLUIDINE BLUE O - Biological Stain Commission (BSC) certified powder dye for preparing the dye solution for detecting amyloids, plant DNA, mast cells, Nissl bodies and nuclei

Preparing the dye solution

Toluidine Blue O dye solution:

- Dissolve 0.1 g of Toluidine Blue O powder dye (by mixing) in 100 ml of distilled/demineralized water while stirring.

Result

Nucleus and cytoplasm (orthochromatic) - blue

Various acid carbohydrates (metachromatic) - pink-red or purple

Note: The results are pertained to metachromatic staining.

* Connective tissues, mucins, basic substances of cartilage, mast cell granules and many epithelial mucins are metachromatic tissues.

Note

The mentioned formulation is only one of the ways of preparing the dye solution. Toluidine Blue O dye is most commonly used for metachromatic 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 Toluidine Blue O powder dye in a tightly sealed original packaging 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

- Conn, J. (1977): Biological Stains, 9th ed., Baltimore: Williams and Wilkins Co.
- Carson, F. L., Hladik, C. (2009): Histotechnology: A Self-Instructional Text, 3rd ed., Chicago: ASCP Press
- Kiernan, J. A. (2008): Histological and Histochemical Methods: Theory and Practice, 4th ed., Scion, Bloxham, UK.

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

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