

CELESTINE BLUE , C.I. 51050

IVD *In vitro* diagnostic medical device CE

Celestin Blue B, Mordant Blue 4

For staining nuclei dark blue

INSTRUCTIONS FOR USE

REF Catalogue number: CB-P-10 (10 g) CB-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. Celestine Blue dye is used with iron-aluminum complex as a substitute for hematoxylin in H-E (hematoxylin-eosin) staining. What makes it special is its resilience to low pH solutions (acids), unlike standard hematoxylin solutions.

Product description

- **CELESTINE BLUE, C.I. 51050** - Powder dye for making solution for nuclear staining

Other sections and reagents that are used in the staining method:

- Iron ammonia sulfate
- Glycerol (BioGnost's Histanol G, product codes HG-1L, HG-5L, HG-10L)
- Mayer hematoxylin (BioGnost's Hematoxylin M, product codes HEMM-OT-100, HEMM-OT-110, HEMM-OT-500, HEMM-OT-1L, HEMM-OT-2.5L)

Preparing Celestine Blue solution for staining

- Dissolve 25 g of iron aluminum sulfate in 500 mL of cold distilled (demi) water while stirring.
 - Add 2.5 g of Celestine Blue powder dye to the solution.
 - Heat the solution until it boils. Let it boil for a few minutes.
 - Filter the solution and add glycerol after it cools down.
- The solution is stable for 5 months. Filter the solution before use.

Preparing the histological sections for staining

Fix the tissue sample tightly (4% NB Formaldehyde, 10% NB Formaldehyde), rinse with water and dehydrate through series of ascending alcohol solutions (Histanol 70, Histanol 80, Histanol 95 and Histanol 100).

Clear the sample with intermedium; in xylene (BioClear) or in a xylene substitute (BioClear New).

Infiltrate and fit the sample in paraffin (BioWax Plus 56/58, BioWax 56/58, BioWax Blue, BioWax Micro).

Cut the paraffin block to 4-6 μ m slices and place them on a VitroGnost glass slide.

Histological sections staining procedure

1.	Deparaffinize the section in xylene (BioClear) or in a xylene substitute (BioClear New)	3 exchanges, 10 min each
2.	Rehydrate using 100% alcohol (Histanol 100)	2 exchanges, 5 and 3 min
3.	Rehydrate using 95% alcohol (Histanol 95)	2 min
4.	Rehydrate in distilled (demi) water	2 min
5.	Stain using Celestine Blue, solution	5 min
7.	Rinse in distilled water	
8.	Stain using Mayer hematoxylin	5 min
9.	Rinse under tap water	3 min
10.	Continue staining according to the chosen protocol	

Immediately after clearing apply an appropriate BioMount medium for covering/mounting on the section. If BioClear xylene was used, use one of BioGnost's mounting xylene-based media (BioMount, BioMount High, BioMount M, BioMount DPX, BioMount C, or universal BioMount New). If BioClear New xylene substitute was used, the appropriate covering agent is BioMount New. Cover the section with a VitroGnost cover glass.

Result

Nuclei - dark blue

Other structures - depends on the reagents used

Note

The mentioned formulation is only one of the ways of preparing the dye solution. 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 Celestine Blue 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 exposure to direct sunlight. Expiry date is stated on the product's label.

References

1. Bancroft, J.D. et Gamble, M. (2008): Theory and Practice of Histological Techniques, Churchill Livingstone, Edinburgh&London, UK
2. Humason, G.L. (1967): Animal tissue techniques, 2nd edition, W.H. Freeman and Company, San Francisco, Ca, USA

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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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