

AZURE B powder dye, C.I. 52010

IVD *In vitro* diagnostic medical device

CE

Azure Blue, Azure I, BSC certified powder dye

For the preparation of Romanowsky-Giemsa stain

INSTRUCTIONS FOR USE

REF Catalogue number: AZB-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. Azure B dye is created by Methylene Blue dye oxidation and is a distinct metachromatic dye. It is used for creating Azure/Eosin dye solutions for staining blood smears. Due to its property of staining basophilic material, the dye is recommended for displaying viral inclusions and for metachromatic mucin and neuroendocrine cell staining. High purity Azure B is used for standardized hematology and histology staining according to Romanowsky.

Product description

- **AZURE B** - Biological Stain Commission (BSC) certified powder dye for preparing Romanowsky-Giemsa dye

Other preparations and reagents used in preparing the dye solution:

- METHYLENE BLUE powder dye, C.I. 52015 (product code MB-P-25; MB-P-100)
- Sodium tetraborate ($\text{Na}_2\text{S}_4\text{O}_7$)

Preparation of staining solution (for Azure B-Methylene Blue dye)

Azure B solution:

- Dissolve 1 g of Azure B powder dye in 100 ml of distilled/deionized water.

Sodium tetraborate solution:

- Dissolve 1 g of sodium tetraborate in 100 ml of distilled/deionized water.

Methylene Blue solution

- Dissolve 1 g of Methylene blue dye in 100 mL of sodium tetraborate solution.

Azure B-Methylene Blue dye solution:

- Mix 1 ml of Azure B solution and 1 ml of Methylene Blue dye.

Note: This formulation only applies to staining samples embedded in paraffin using Azure B-Methylene Blue dye.

Result

Cellular nuclei, cells - blue, dark blue

Collagen, osteoid - bright blue

Eosinophil granules - red

Acidophilic mucopolysaccharides, mast cells, cartilage matrix - reddish-purple

Acidophilic substances - orange-red

Note

The mentioned formulation is only one of the ways of preparing the dye solution. Azure B dye is most commonly used for preparing Romanowsky-Giemsa stain. 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 Azure B 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. Conn, J. (1977): *Biological Stains*, 9th ed., Baltimore: Williams and Wilkins Co.
2. Gurr, E. (1971): *Synthetic dyes in biology, medicine and chemistry*, London: Academic Press.
3. Kuhlmann, W. D. (2009), Azur-methylene blue staining of resins sections, Division of Radiooncology, Deutsches Krebsforschungszentrum, 69120 Heidelberg, Germany.
4. Romanowsky, D. (1891): Zur Frage der Parasitologie und Therapie der Malaria. *St Petersburg Medizin Wochenschrift* 16: 297-302, 307-315.
5. Giemsa, G. (1904): Eine Vereinfachung und Vervollkommnung meiner Methylenazur-Methylenblau-Eosin-Färbemethode zur Erzielung der Romanowsky-Nochtschen Chromatinfärbung. *Centralblatt für Bakteriologie* 37: 308-311

AZB-P-25, V2-EN1, 30 September 2015, VR/IŠP

	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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