

# LUXOL FAST BLUE MBSN, C.I. 74180 powder dye

IVD In vitro diagnostic medical device



## Luxol Fast Blue, Solvent Blue 38, C.I. 74180 For staining myelin

### INSTRUCTIONS FOR USE

REF Catalog number: LFB-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. It is used in histology for staining myelin sheath. As a part of Luxol Fast Blue kit with Cresyl Violet, solution it is used for visualization of myelin, Nissl bodies on histology sections and for visualization of basic structure of brain tissue and spinal cord tissue. Staining intensity depends on contents of Luxol Fast Blue MBSN powder dye. Several factors may contribute to results of staining, such as pH solution and buffer solutions, buffer substances, fixation and duration of staining procedure.

#### Product description

- **Luxol Fast Blue MBSN, C.I. 74180 powder dye** - Powder dye for use in histology for staining myelin.

#### Other preparations and reagents used in preparing the dye solution:

- Ethyl alcohol, such as BioGnost's Histanol 100 (product code H100-1L)

#### Preparing the solutions for staining

Alcian Green powder dye solution:

- Dissolve 1 g of Luxol Fast Blue MBSN powder dye in 1000 ml of ethanol.
- Stir until complete dissolution.

#### Sample 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.	Stain with Luxol Fast Blue, solution	overnight at 37°C or for 2 hours at 60°C
5.	Rinse in 95% alcohol (Histanol 95) until formed crystals dissolve	several rapid dips
6.	Rinse in distilled (demi) water	
7.	Treat with Lithium carbonate solution, Luxol	5-30 seconds
	Note: use the microscope in order to check if the grey matter differs from white matter, repeat this step if necessary	
8.	Immerse the section into 70% ethyl alcohol (Histanol 70) and let it set until myelin fibers turn blue on a transparent background (check using microscope).	several rapid dips
9.	Rinse thoroughly in distilled (demi) water twice	several dips
10.	Add 10 drops of Cresyl Violet, solution	30-60 minutes at 60 °C
11.	Immerse the section into 95% ethyl alcohol (Histanol 95) and let it set until Nissl bodies turn light pink	Several quick dips
12.	Dehydrate using 100% alcohol (Histanol 100)	2 min
13.	Clear the section in xylene (BioClear) or in a xylene substitute (BioClear New)	2 exchanges, 5 min each

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 VitroGnost cover glass.

#### Result

Myelin - turquoise blue  
Neurons and glia cells nuclei - pink to purple  
Nissl bodies - pale pink

#### 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 Alcian Green 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

1. Conn, J. (1977): Biological Stains, 9<sup>th</sup> ed., Baltimore: Williams and Wilkins Co.
2. Gurr, E. (1971): Synthetic dyes in biology, medicine and chemistry, London: Academic 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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