BIOGNOST®

BRILLIANT CRESYL BLUE, C.I. 51010

CE IVD *In vitro* diagnostic medical device Classification according to Regulation (EU) 2017/746 - **Class A** device

For the preparation of staining solutions in hematology and histology

Synonym: Brilliant Blue C

INSTRUCTIONS FOR USE

Basic UDI-DI	385889212HPC30707PDYETD	
EMDN code	W01030707	
REF **Catalog number**	**Volume**	**UDI-DI**
BCB-P-10	10 g	03858890000979
BCB-P-25	25 g	03858890002461

Intended use and test principle

Supravital staining is a microscopic staining method for live, unfixed cells that have been removed from the organism. It differs from intravital staining, in which the dye is applied within the organism itself. In supravital staining, cells are stained outside the organism with a freshly prepared dye and examined within a limited period of time, since this is a temporary staining of viable cells. Brilliant Cresyl Blue stain is used for supravital staining of reticulocytes in peripheral blood. Reticulocytes are juvenile erythrocytes that contain remnants of basophilic ribonucleoproteins (substantia granulofilamentosa). Brilliant Cresyl Blue binds to these ribonucleoprotein remnants, resulting in a characteristic granular or filamentous dark blue to dark blue-black reticular structure within reticulocytes, while mature erythrocytes do not show such structures. Counting supravitally stained reticulocytes (expressed as the percentage of reticulocytes in relation to the total number of erythrocytes) is used to assess the erythropoietic activity of the bone marrow and helps in the evaluation of anemia.

Product description

- **BRILLIANT CRESYL BLUE, C.I. 51010** - Powder dye for the preparation of a staining solutions for supravital staining

Other materials that may be used in the staining method

- VitroGnost slides and coverslips for use in histopathology and cytology
- Physiological saline (0.85% NaCl)

Preparation of the stock staining solution

1% Brilliant Cresyl Blue dye solution:

- Dissolve 1 g of Brilliant Cresyl Blue powder dye in 100 mL of physiological saline and filter. Seal tightly and store the stock solution until use.

Preparation of the Brilliant Cresyl Blue working staining solution

- Before the staining, dilute the stock staining solution with physiological saline at a ratio of 1:80 to 1:200, i.e., mix 1 mL of the stock staining solution with 80 mL or 200 mL of physiological saline.

Note: Perform a test beforehand to determine the optimal dilution

Test sample

- Non-coagulated venous blood (with EDTA) or capillary blood

Staining procedure

A) Staining in a test tube

- Mix equal volumes of blood and staining solution in a glass test tube (e.g., 20 µL blood + 20 µL Brilliant Cresyl Blue working staining solution)
- Allow to stand for 30 minutes. Mix again.
- Prepare a blood smear on a glass slide.
- After air drying, the smear is examined microscopically without prior fixation or counterstaining.

B) Staining on a glass slide

- Prepare a thin smear of Brilliant Cresyl Blue working staining solution on a glass slide using a glass rod. Air-dried slides can be stored for up to 2 weeks.
- Mix a small drop of blood over the dye smear.
- To prevent the preparation from drying out, immediately place the preparation in an incubation container for 5–10 minutes.
- Air dry the slide. The preparation is examined microscopically without prior fixation or counterstaining.

It is recommended to use immersion oil during microscopic analysis of the stained preparation at magnification greater than 40x.

Result

Reticulocytes show a dark blue network or dark blue dots.

Reticulocyte counting

The reticulocyte count is expressed as a ratio per 100 counted erythrocytes, i.e., as a percentage.

Normal reticulocyte values (%):

Adults:	0.5 - 1.5
Newborns:	2 - 6

Limitations

This product is intended for professional laboratory use for diagnostic purposes only. Deviations from the staining procedure described in BioGnost's Instructions for Use may cause differences in results.

Sample preparation and diagnostics

Use only appropriate instruments for collecting and preparing the samples. Process the samples using modern technology and mark them clearly. It is necessary to follow the manufacturer's instructions for use. To avoid errors, staining and diagnosis may only be performed by qualified personnel. Use a microscope that complies with medical diagnostic laboratory standards.
If a serious incident occurs during use or as a result of its use, please report it to the manufacturer and/or authorized representative and competent authority.

Safety at work and environmental protection

Handle the product in accordance with occupational health and environmental protection guidelines. Used and expired solutions must be disposed of as special waste following national guidelines. Reagents used in this procedure can pose a danger to human health. The examined tissue samples are potentially infectious, therefore it is necessary to implement human health protection measures in accordance with good laboratory practice guidelines. It is mandatory to read and act according to the information and warning signs printed on the product label and in BioGnost's Safety Data Sheet, which is available on request.

Storage, stability, and shelf life

Upon receipt, store the product in a dry place and well-closed original packaging at a temperature of +15 °C to +25 °C. Do not freeze or expose to direct sunlight. After first opening, the product can be used until the specified expiry date, if stored properly. The production date and expiration date are printed on the product label.

References

1. Conn, J. (1977): Biological Stains, 9th ed., Baltimore: Williams and Wilkens Co.

Upozorenja i mjere opreza u vezi s materijalima sadržanima u proizvodu:



H315	Causes skin irritation..
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.

BCB-P-IFU_ENV3, 26.10.2026., IŠP

	Manufacturer	LOT	Batch code		Consult instructions for use	CE	European conformity
	Date of manufacture	REF	Catalogue number		Caution	UDI	Unique device identifier
	Use-by date	°C	Temperature limit	IVD	*In vitro* diagnostic medical device		

BioGnost Ltd.
Medjugorska 59, 10040 Zagreb, Croatia, EU, www.biognost.com

Version	Description / reason for change	Date
3	Update to warnings and precautions.	26.10.2026.