

# TB DECOLORIZER

IVD *In vitro* diagnostic medical device



## For use in TB-Stain Cold and TB-Stain Hot kit INSTRUCTIONS FOR USE

REF Catalogue number: TBD-OT-100 (100 ml) TBD-OT-250 (250 ml) TBD-OT-500 (500 ml) TBD-OT-1L (1000 mL) TBD-OT-2.5L (2500 mL)

### Introduction

BioGnost's TB Decolorizer is an ethanol and hydrochloric acid solution used in microbiological diagnostics for staining bacteria samples. TB Decolorizer is appropriate for manual and mechanical destaining of samples. It is recommended for use in staining according to Ziehl-Neelsen or Kinyoun methods of staining acid-fast bacteria. For a faster destaining result, it is recommended to use BioGnost's TB Decolorizer 2 with a higher level of hydrochloric acid.

### Product description

- **TB DECOLORIZER** - Decolorizer for use in the Kinyoun and Ziehl-Neelsen methods for acid fast bacteria identification.

### Other slides and reagents that may be used in staining:

- Glass slides used in microbiology, such as VitroGnost ECONOMY GRADE or glass slides used in cytology, such as VitroGnost STANDARD GRADE or high quality glass slides used in histopathology, such as VitroGnost SUPER GRADE or one of more than 30 models of VitroGnost glass slides.
- Primary color solution for use in staining methods according to Ziehl-Neelsen, such as BioGnost's TB Carbol Fuchsin 0.6 reagent, TB Carbol Fuchsin 0.3 reagent or TB Carbol Fuchsin 1.0 reagent.
- Counterstain solution for use in staining methods according to Ziehl-Neelsen, such as BioGnost's Methylene Blue Loeffler reagent.
- Counterstain solution for use in staining methods according to Kinyoun, such as BioGnost's TB Malachite Green reagent.
- BioGnost's immersion media, such as Immersion oil, Immersion oil, types A, C, FF, 37, or Immersion oil Tropical Grade

### Preparing the sample for staining

- Transfer the sample on a clean glass slide using a sterilized smear loop.  
Note: Acceptable samples include sputum, lumbar puncture sample or sputum sediment.
- Spread the sample evenly across the glass slide using 1-2 drops of saline solution.
- Fix the sample using the Bunsen burner after drying by wriggling the glass slide through the cone of flame for 2-3 times.  
Note: Samples can be fixated in an oven at temperature 100°C-110°C for 20 min.
- Cool the glass slide and begin the process of staining.  
Note: If the sample is a histological section, it should be processed using standard histological methods.

### Sample staining procedure

#### According to Ziehl-Neelsen

1.	Cover the samples completely with the TB Carbol Fuchsin reagent. Carefully heat the glass slide containing the sample and dye on the bottom side of the slide using the Bunsen burner until evaporation occurs. Keep the slide hot for 5 min. Do not let the dye boil.	5 min
2.	Rinse with tap water until the dye destains.	
3.	Cover the sample using using TB Decolorizer and let it set for 15-30 seconds (depending on the sample thickness).	15-30 seconds
4.	Rinse with tap water.	
5.	Stain the sample using BioGnost's Methylene Blue Loeffler reagent	30 seconds
6.	Rinse with tap water thoroughly.	
7.	Dry the section	

#### According to Kinyoun

1.	Cover the samples completely with the TB Carbol Fuchsin reagent.	5 min
2.	Rinse with tap water until the dye destains.	
3.	Cover the sample using using TB Decolorizer and let it set for 15-30 seconds (depending on the sample thickness).	15-30 seconds
4.	Rinse with tap water.	
5.	Stain with TB Malachite Green reagent	60 seconds
6.	Rinse with tap water thoroughly.	
7.	Dry the section	

### Results

Acid fast bacteria - red

Background – blue (Ziehl-Neelsen method) or green (Kinyoun method)

### Note

Microbiology staining procedures are not standardized and they depend on standard operating procedures of individual laboratories and the experience of the personnel conducting the staining procedure. Intensity of staining depends on the period of immersion in the dye. Depending on personal requests and standard laboratory operating procedures, sample processing and staining can be carried out according to other protocols. It is possible to use other TB Decolorizer solutions from BioGnost's product range. Using TB Decolorizer 2 enables faster destaining of the sample.

### 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.

### 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 Acid alcohol in a tightly sealed original packaging at temperature of 15°C to 25°C. Do not keep in cold places, do not freeze and avoid exposing to direct sunlight. Date of manufacture and expiry date are printed on the product's label.

### References

1. Madison B (2001). "Application of stains in clinical microbiology". *Biotech Histochem* **76** (3): 119-25.
2. Ryan KJ, Ray CG (editors) (2004). *Sherris Medical Microbiology* (4<sup>th</sup> ed.). McGraw Hill.
3. Margaret A. Bartelt, 2000: Diagnostic Bacteriology: A Study Guide, F.A. Davis Company.

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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				

 BIOGNOST Ltd.  
Medjugorska 59  
10040 Zagreb  
CROATIA  
www.biognost.com

