

# GOMORI TRICHROME KIT

IVD *In vitro* diagnostic medical device



## Five-reagent muscle and collagen fiber staining kit

### INSTRUCTIONS FOR USE

REF Catalogue number: GT-100T (for 100 tests) GT-K-100 (5x100 mL)

#### Introduction

Gomori Trichrome kit is used for analysis of collagen fibers in liver and kidneys, in order to achieve easier differentiation of collagen and smooth muscle fibers, as well as for distinguishing destroyed fibers (present in cases of mitochondrial myopathies).

#### Product description

- **GOMORI TRICHROME KIT** - Five-reagent muscle and collagen fiber staining kit

The kit contains:	100 tests (GT-100T)	5 x 100 mL (GT-K-100)
Bouin's solution	BOU-OT-30 (30 mL)	BOU-OT-100 (100 mL)
Hematoxylin, Weigert A	HEMA-OT-30 (30 mL)	HEMA-OT-100 (100 mL)
Ferri reagent, Weigert B	FR-OT-30 (30 mL)	FR-OT-100 (100 mL)
Chromotrope 2R/Aniline Blue reagent	CABR-OT-30 (30 mL)	CABR-OT-100 (100 mL)
Differentiating reagent for Gomori Trichrome kit	RDG-OT-30 (30 mL)	RDG-OT-100 (100 mL)

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

- Fixatives such as BioGnost's neutral buffered formaldehyde solutions: Formaldehyde NB 4%, Formaldehyde NB 10%
- Dehydrating/rehydrating agent, such as BioGnost's alcohol solutions: Histanol 70, Histanol 80, Histanol 95 and Histanol 100
- Clearing agents, such as BioClear xylene or a substitute, such as BioClear New agent on the aliphatic hydrocarbons basis
- Infiltration and fitting agent, such as BioGnost's granulated paraffin BioWax Plus, BioWax 56/68, BioWax Blue, BioWax Micro.
- High-quality glass slides for use in histopathology and cytology, such as VitroGnost SUPER GRADE, VitroGnost COLOR or one of more than 30 models of BioGnost's VitroGnost glass slides

#### Preparing the histological sections for staining

- Fixate the sample (Formaldehyde NB 4%, Formaldehyde NB 10%), 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, BioWax 56/58, BioWax Blue, BioWax Micro).
- Cut the paraffin block to 4-6  $\mu$ m slices and place them on a VitroGnost glass slide.

#### Sample staining procedure

1.	Deparaffinize the section in xylene (BioClear) or in a xylene substitute (BioClear New)	3 exchanges, 2 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 Bouin's solution	60 min at 56°C or over night at room temperature
6.	Cool the section down at room temperature	10 min
7.	Rinse under tap water	10 seconds
8.	Rinse in distilled water	10 seconds
9.	Stain using Hematoxylin, Weigert A (5 drops) and Ferri reagent, Weigert B (5 drops)	5 min
10.	Rinse under tap water	5 min
11.	Stain using Chromotrope 2R/Aniline Blue reagent (10 drops)	5-10 minutes
12.	Rinse in distilled water	5 dips
13.	Treat with Differentiating reagent for Gomori Trichrome kit (10 drops)	2 min
14.	Rinse in distilled water	5 dips
15.	Dehydrate using 70% alcohol (Histanol 70)	5 dips
16.	Dehydrate using 95% alcohol (Histanol 95)	5 dips
17.	Dehydrate using 100% alcohol (Histanol 100)	2 min
18.	Clear the section in xylene (BioClear) or in a xylene substitute (BioClear New)	2 exchanges, 2 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 a VitroGnost cover glass.

## Result

Collagen - blue  
Muscle tissue - pink  
Nuclei – blue-purple  
Erythrocytes - red to orange

## Note

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.

## 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 Gomori Trichrome kit in a tightly sealed original packaging at temperature of 15 to 25°C. Keep in dry 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. Bancroft, J.D., Gamble, M. (2002), Theory and practice of Histological Techniques, Churchill Livingstone, New York.
2. Prophet, Mills, Arrington, Sobin (1968), Laboratory methods in histotechnology. Stain methods of the Arm Forces Institute of Pathology, Washington D.C.
3. Carson, F. L. (1997), Histotechnology: a self-instructional text. American Society for Clinical Pathology (2<sup>nd</sup> edition), Singapore.

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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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