

ELASTICA-VAN GIESON KIT



IVD *In vitro* diagnostic medical device

Classified acc. to Regulation (EU) 2017/746 - **Class A** device

Four-reagent kit for rapid staining elastic fibers

INSTRUCTIONS FOR USE

BACIS UDI broj	385889212HPC30708STARVF		
EMDN code	W01030708		
REF	Catalog number	Volume	UDI-DI number
WVGB-100T	For 100 tests	03858892125892	
WVGB-K-100	4x100 mL	03858892125908	



Intended use and test principle

Elastica-Van Gieson kit is used for staining elastin, connective tissue and collagen. Elastic fibers consist of elastin polymers and elastic microfibrils that make up a 3D network in an extracellular matrix inside connective tissue (skin, elastic cartilage, vascular walls, lung tissue and in vocal cords). Unlike standard histology stains, Weigert Van Gieson reagent (known as resorcin-fuchsin reagent) displays selective differentiation of tissue samples, even in early phase of disease. When using Elastica-Van Gieson kit, the sections are first treated with Resorcin Fuchsin reagent. Positively charged hydrophobic resorcin-fuchsin dye is present in large amounts and it is deposited owing to electropolarity to acid, negatively charged shells of elastic fibers. After differentiation in diluted alcohol or rinsing in tap water, the nuclei are stained with acid-fast Weigert hematoxylin. The last phase of staining is staining with Fuchsin Acid Van Gieson reagent that contains two dyes (acid fuchsin, picric acid) that simultaneously stain different tissue structures. Acid fuchsin stains collagen fibers intensive red while picric acid stains muscle fibers, erythrocytes and glial fibers yellow. Sections are optimally stained in short period of time by using rapid staining method.

Product description

- **ELASTICA-VAN GIESON KIT** – Kit for rapid staining of elastic fibers.

The kit contains:	100 tests (WVGB-100T)	4 x 100 mL (WVGB-K-100)	Storage temperature
Resorcin Fuchsin reagent	60 mL (RFR-OT-60)	100 mL (RFR-OT-100)	15-25°C
Hematoxylin, Weigert A	30 mL (HEMA-OT-30)	100 mL (HEMA-OT-100)	15-25°C
Ferri reagent, Weigert B	30 mL (FR-OT-30)	100 mL (FR-OT-100)	15-25°C
Fuchsin Acid Van Gieson reagent	30 mL (FAG-OT-30)	100 mL (FAG-OT-100)	15-25°C

Additional reagents and materials that can be used in this method

- 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 agent, such as BioClear xylene or its aliphatic hydrocarbon substitutes, such as BioClear New
- Infiltration and embedding agent, such as BioGnost's granulated paraffin BioWax Plus 56/58, BioWax 56/68, BioWax Blue
- Covering agents for microscopic sections and mounting cover glass, such as BioGnost's BioMount, BioMount High, BioMount M, BioMount New, BioMount DPX, BioMount DPX High, BioMount DPX Low, BioMount C, BioMount Aqua
- VitroGnost slides and coverslips for use in histopathology and cytology
- BioGnost's immersion oils, such as Immersion oil, Cedarwood oil, Immersion oils types A and C, FF, 37 or Tropical Grade

Preparation of histological sections for staining

- Fix (Formaldehyde NB 4%, Formaldehyde NB 10%) and process the tissue sample
- Embed the tissue in a paraffin block (BioWax 52/54, BioWax 56/58, BioWax Plus 56/58, BioWax Blue)
- Cut the paraffin block into 4-6 μ m thin slices and mount on a VitroGnost microscope slide

NOTE

Apply the reagent so it completely covers the slide.

Histology sample staining procedure

a) using kit for 100 tests (WVGB-100T)

1.	Deparaffinize in xylene (BioClear) or xylene substitute (BioClear New)	3 exchanges, 2 min each
2.	Rehydrate in 100% alcohol (Histanol 100)	2 exchanges, 5 and 3 min
3.	Rehydrate in 95% alcohol (Histanol 95)	2 min
4.	Rehydrate in distilled/demineralized water	2 min
5.	Staining with Resorcin Fuchsin reagent: dip the slide in Resorcin Fuchsin reagent and cover it to prevent reagent evaporation. Reagent may be filtered and reused	30 min
6.	Rinse under tap water	1 min
7.	Apply 5 drops of Hematoxylin, Weigert A and 5 drops of Ferri reagent, Weigert B. Gently stir and let it react.	5 min
8.	Rinse under tap water	1 min
9.	Add Fuchsin Acid Van Gieson reagent (≥ 5 drops) Note: longer exposure provides a more intense red	5-10 min
10.	Rinse quickly in distilled/demineralized water	
11.	Quickly dehydrate through 96% and 100% alcohol (Histanol 96 and Histanol 100) Note: the amount of yellow dye rinsed rises the longer the slide stays immersed	
12.	Clear in xylene (BioClear) or 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). Cover the sample with a VitroGnost cover glass.

*To avoid fading of the preparation (loss of yellow dye), it is recommended to clear in xylene (BioClear) and use BioMount DPX/BioMount DPX New for mounting/covering.

b) using six-reagent kit, 100 mL (WVGB-K-100)

Pour the reagents into glass staining jars (Coplin, Hellendahl or Schifferdecker), return to original bottles after staining. Close tightly. Filter the reagents if necessary.

1.	Deparaffinize in xylene (BioClear) or xylene substitute (BioClear New)	3 exchanges, 2 min each
2.	Rehydrate in 100% alcohol (Histanol 100)	2 exchanges, 5 and 3 min

3.	Rehydrate in 95% alcohol (Histanol 95)	2 min
4.	Rehydrate in distilled/demineralized water	2 min
5.	Staining with Resorcine Fuchsin reagent: dip the slide in Resorcine Fuchsin reagent and cover it to prevent reagent evaporation. Reagent may be filtered and reused	30 min
6.	Rinse under tap water	1 min
7.	Prepare Weigert hematoxylin working solution: mix equal volumes of Hematoxylin, Weigert A and Ferri reagent, Weigert B Note: working solution is stable for approximately 2 weeks. Prepare the working solution of volume adequate for staining test slides	
8.	Immerse into Weigert hematoxylin working solution and let it react	5 min
9.	Rinse under tap water	1 min
10.	Immerse into Fuchsin Acid Van Gieson reagent	5-10 min
11.	Rinse quickly in distilled/demineralized water	
12.	Quickly dehydrate through 96% and 100% alcohol (Histanol 96 and Histanol 100) Note: the amount of yellow dye rinsed rises the longer the slide stays immersed	
13.	Clear in xylene (BioClear) or 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). Cover the sample with a VitroGnost cover glass.

*To avoid fading of the preparation (loss of yellow dye), it is recommended to clear in xylene (BioClear) and use BioMount DPX/BioMount DPX New for mounting/covering.

Result

Nuclei – blue – black

Collagen – hues of red – purple

Elastic fibers – dark purple to black

Connective tissue, erythrocytes and muscle tissue – yellow

Limitations

This product is intended for professional laboratory use for diagnostic purposes only. Deviations from the staining procedure described in this Instruction for use may cause differences in staining 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. Be sure to follow the manufacturer's handling instructions. To avoid errors, staining and diagnosis can only be carried out by qualified personnel. Use a microscope equipped according to medical diagnostic laboratory standards. To avoid an incorrect staining result, it is advised to use a positive and negative control.

If a serious incident occurs during use of this product or as a result of its use, please report it to the manufacturer 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, and it is necessary to take the measures needed to protect human health in accordance with the guidelines of good laboratory practice. It is mandatory to read and act according to the information and warning signs printed on the product label and in the 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 expiration date is printed on the product label.

References

1. Culling, C.F.A. (1974): Handbook of histopathological and histochemical techniques, 2 ed ed., Butterworth, London, UK.
2. Lillie, R.D. (1945): Studies on selective staining of collagen with acid aniline dyes, J. Technical Methods, 25:1
3. Sheehan D.C. et Hrapchak, B.B. (1980): Theory and Practice Histotechnology, 2nd ed., CV Mosby, St. Louis, (MO), pp 52, str. 14-167.
4. Van Gieson, I. (1889): Laboratory notes of technical methods for the nervous system, New York Med. J., 50: 57-60

Warnings and precautions regarding the materials contained in the product:

	H225 H315 H317 H319 H341 H350 H351	Highly flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing genetic defects. May cause cancer. Suspected of causing cancer.
	P210 P233 P280 P302+P352 P305+P351+P338 P333 + P313 P308+P313	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: wash with plenty of water. IF IN EYES: rinse carefully with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If skin irritation or rash occurs: get medical advice/attention. IF exposed or concerned: get medical advice/attention.

WVGB-IFU_ENV3, 24.02.2026., IŠP

 Manufacturer	 Batch code	 Consult instructions for use	 Contains sufficient for <n> tests	 Contains hazardous substances
 Date of manufacture	 Catalogue number	 Caution	 European conformity	
 Use-by date	 Temperature limit	 <i>In vitro</i> diagnostic medical device	 Unique device Identifier	

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Version	Description / reason for change	Date
3	Revised acc. to Regulation (EU) 2017/746 - IVDR	24.02.2026.