BIOGNOST®

P.A.S. DIASTASE KIT

CE IVD *In vitro* diagnostic medical device Classified acc. to Regulation (EU) 2017/746 - **Class A** device

Kit for detecting glycogen and mucopolysaccharide structures

INSTRUCTIONS FOR USE

BASIC UDI number	385889212HPC30708STARVF	
EMDN code	W01030708	
REF **Catalogue number**	**Volume**	**UDI-DI number**
PDIA-100T	For 100 tests	03858892124048

Intended use and test principle

BioGnost's P.A.S. Diastase kit is most commonly used for identifying glycogen in liver. Periodic acid enables the molecules containing glycol groups to create aldehydes affected by Schiff's reagent staining them violet (magenta). Specific stains are created by applying the PAS method on unsubstituted polysaccharides, mucoproteins and glycoproteins, glycolipids and phospholipids. Alpha-amylase enzyme (also known as diastasis) is used for differentiation between glycogen and other PAS-positive structures by dissolving 1→4 glycosidic bonds, causing the glycogen to remain unstained after the PAS reaction. BioGnost's P.A.S. Diastase kit uses thermostable enzyme which does not require heating to +37°C to be active, but incubating the section at +37°C is preferred in order to achieve better glycogen breakdown. The same tissue section is used as negative control for this reaction, but the sample is not treated using alpha-amylase.

Product description

- **P.A.S. DIASTASE KIT** – Kit for differentiating glycogen from other PAS positive structures

The kit contains:	for 100 tests (PDIA-100T)	Storage temperature:
Alpha-amylase, solution	30 mL (ALF-OT-30)	**2-8°C**
Periodic acid, 0.8% solution	30 mL (PK08-OT-30)	15-25°C
BioSchiff reagent	30 mL (BS-OT-30)	**2-8°C**
Hematoxylin ML	30 mL (HEMML-OT-30)	15-25°C
Bluing reagent	30 mL (BR-OT-30)	15-25°C

Additional reagents and materials that can 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 BioClear New, an aliphatic hydrocarbon-based xylene substitute
- Infiltration and embedding agent, such as BioGnost's granulated paraffin Biowax 52/54, BioWax 56/68, BioWax Plus 56/58, BioWax Blue
- Covering agents for microscopic sections and mounting cover glass, such as BioGnost's BioMount, BioMount High, BioMount M, BioMount New, BioMount New Low, BioMount DPX, BioMount DPX High, BioMount DPX Low, BioMount C, BioMount Aqua
- VitroGnost slides and coverslips for use in histopathology and cytology

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 μm thin slices and mount on a VitroGnost microscope slide

NOTE

Apply the reagent so it completely covers the section.

The bottle containing BioSchiff reagent must be tightly closed in order to avoid SO2 evaporation and to maintain reagent quality. Immediately after use, store the reagent at +2 to +8 °C in its original packaging.

Sample staining procedure

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.	Apply the Alpha-amylase solution on the the section (add ≥5 drops)	15 - 20 minutes at room temperature (better glycogen breakdown achieved by heating at +37°C)
	Note: Skip this step for negative control	
6.	Rinse under indirect stream of distilled/demineralized water	3 min
7.	Apply Periodic acid, 0.8% solution (add ≥5 drops)	5-10 minutes
8.	Rinse under indirect stream of tap water	3 min
9.	Rinse in distilled/demineralized water	
10.	Apply BioSchiff reagent (add ≥5 drops)	10-15 minutes
11.	Rinse under indirect stream of tap water	3 min
12.	Apply Hematoxylin ML (add ≥5 drops)	1-3 minutes
13.	Rinse under indirect stream of distilled/demineralized water	10 seconds
14.	Nuclear bluing with Bluing reagent	
	Note: End the process of bluing after the nuclei turn blue	
15.	Immerse the sections in distilled/demineralized water.	
16.	Dehydrate in 70% alcohol (Histanol 70)	5 dips
17.	Dehydrate in 95% alcohol (Histanol 95)	5 dips
18.	Dehydrate in 100% alcohol (Histanol 100)	2 min

19.	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 covering/mounting medium. If BioClear xylene was used, use one of BioGnost's xylene-based mountants (BioMount, BioMount High, BioMount M, BioMount DPX, BioMount C, or universal BioMount New). If BioClear New xylene substitute was used, the appropriate mountant is BioMount New. Cover the section with a VitroGnost cover glass.

Result

Nuclei - blue
Basal membrane, fungal cell wall - red to purple
Glycogen (on negative control section), polysaccharides, neutral mucopolysaccharides, mucoproteins and glycoproteins, glycolipids, phospholipids, collagen - magenta
Site of glycogen breakdown - lack of magenta (purple background)

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 a false result, it is recommended 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

Components of P.A.S. Diastase kit are kept under different storage conditions. Upon receipt, store the components in a dry place and well-closed original packaging at temperature indicated on the label. Do not freeze and avoid exposing 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, 2nd ed., Butterworth, London, UK.
2. Davey, F.R. et Nelson, D.A.(1977): Periodic Acid Schiff (PAS) Stain. IN Hematology, 2nd ed., W. J. Williams, E. Buetler, A. J. Erslev, R.W. Rundles, McGraw-Hill, New York, p 1630-1632.
3. Hotchkiss, R.D.(1948): A microchemical reaction resulting in the staining of polysaccharide structures in fixed tissue preparations, *Arch. Biochem.* 16, p 131.
4. Sheehan D.C. et Hrapchak, B.B.(1980): Theory an Practice Histotechnology, 2nd ed., CV Mosby, St. Louis, (MO), pp 52, p 14-167.

Warnings and precautions regarding the materials contained in the product:

H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
EUH031	Contact with acids liberates toxic gas.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P281	Use personal protective equipment as required.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P31	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

PDIA-100T_IFU_ENV6, 02.04.2026., IŠP

	Manufacturer	LOT	Batch code	°C	Temperature limit	IVD	*In vitro* diagnostic medical device	UDI	Unique device identifier
	Date of manufacture	REF	Catalogue number		Consult instructions for use	Σ	Contains sufficient for <n> tests		
	Use-by date		Fragile, handle with care		Caution	CE	European conformity		

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Version	Description / reason for change	Date
6.	Change in storage temperature of the BioSchiff reagent to 2-8 °C	02.04.2026.