

EOSIN Y, C.I. 45380



IVD *In vitro* diagnostic medical device

Classification according to Regulation (EU) 2017/746 - **Class A** device

Counterstain to hematoxylin, for the preparation of cytological EA Papanicolaou reagents and polychromatic hematology reagents

Eosin yellowish, Acid Red 87, Eosin WS

INSTRUCTIONS FOR USE

Basic UDI-DI	385889212HPC30707PDYETD		
EMDN code	W01030707		
REF Catalog number	Mass	UDI-DI	
EOY-P-25	25 g	03858888820695	
EOY-P-100	100 g	03858888820701	
EOY-P-500	500 g	03858888820718	



Intended use and test principle

Histology, cytology, and other related scientific disciplines study the microscopic anatomy of tissues and cells. Proper staining is required to achieve good visualization of tissue and cellular structures. Eosin Y (eosin) is an acidic (anionic) dye that stains acidophilic (eosinophilic) tissue structures pink to red. Eosin primarily acts through electrostatic (ionic) interactions and binds to tissue components that contain positively charged (basic) groups, particularly protein amino groups. For this reason, eosin intensely stains protein-rich structures, such as the cytoplasm of most cells, collagen fibers, muscle fibers, and erythrocytes (due to their high hemoglobin content). In standard hematoxylin–eosin (H&E) staining, hematoxylin stains nuclei blue-purple, while eosin stains the cytoplasm and extracellular proteins pink. Eosin is also used as one of the dyes in Papanicolaou staining solutions for the staining of cytological samples. It is widely used in numerous staining methods, as well as in the preparation of polychromatic Romanowsky stains for the staining of hematological samples.

Product description

- **EOSIN Y, C.I. 45380** - powder dye for the preparation of staining solutions in histology, cytology, and hematology

Example of using Eosin Y powder dye as a counterstain solution in progressive HE staining

Additional reagents and materials that can be used in the staining procedure

- Fixatives, such as BioGnost's neutral buffered formaldehyde solutions: Formaldehyde NB 4%, Formaldehyde NB 10%
- Dehydration/rehydration agents such as BioGnost's alcohol solutions: Histanol 70, Histanol 80, Histanol 95, and Histanol 100
- A clearing agent such as BioClear xylene or a substitute such as BioClear New, an aliphatic hydrocarbon-based agent
- Infiltration and embedding agents such as BioGnost's granulated paraffins BioWax 52/54, BioWax Plus 56/58, BioWax 56/58, BioWax Blue
- Microscopic slide covering agents and cover glass mountants 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
- Immersion oils such as BioGnost's Immersion Oil, Immersion Oils types A, C, FF, 37, or Immersion Oil Tropical Grade
- BioGnost's reagents for progressive HE staining such as Hematoxylin M, ML, G1, G2, and H
- Acetic acid, glacial (concentrated)

Preparation of the staining solution

- 1% aqueous eosin solution (1000 mL):

Dissolve 10 g of Eosin Y powder dye in 1 L of distilled/demineralized water while stirring.

Note: The optimal pH range for the Eosin Y staining solution is between 5.5 and 5.75. Adjust the pH of the solution with glacial acetic acid so that it falls within the specified range. Filter before use.

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 micron thin sections and mount on a VitroGnost microscope slide

Manual hematoxylin-eosin (HE) staining procedure, progressive

1.	Deparaffinize in xylene (BioClear) or xylene substitute (BioClear New)	3 exchanges, 2 min each
2.	Rehydration in 100% alcohol (Histanol 100)	2 exchanges, 5 and 3 min
3.	Rehydration in 95% alcohol (Histanol 95)	2 min
4.	Rehydration in distilled/demineralized water	2 min
5.	Stain with Hematoxylin M, Hematoxylin ML, Hematoxylin G1, G2, or Hematoxylin H	3-5 min
	Note: If precipitation has occurred in the solution or a metallic sheen has formed on the surface, the reagent must be filtered before use	
6.	Immerse the slide in distilled/demineralized water until the release of color from the slide stops	
7.	Make nuclei turn blue using Scott's solution or Bluing reagent	1 min
	Note: Stop bluing after the nuclei turn blue. If Scott's solution or Bluing reagent are unavailable, rinse the slides under running tap water for 3-5 minutes	
8.	Immerse the slide in distilled/demineralized water	
9.	Stain with 1% aqueous eosin solution	within 2 min

10.	Rinse under running tap water	2 min
11.	Dehydration in 95% alcohol (Histanol 95)	2 exchanges of 10-15 dips
12.	Dehydration in 100% alcohol (Histanol 100)	3 exchanges of 10-15 dips
13.	Clear in xylene (BioClear) or 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

Cytoplasm, collagen, muscle fibers, erythrocytes - shades of pink

Note

The formulation described above is only one of the methods for preparing the staining solution. Depending on individual requirements and the laboratory's standard operating procedures, the staining solution may also be prepared according to other protocols.

Limitations

This product is intended for professional laboratory use for diagnostic purposes only. Deviations from the method of preparing the dye solution or from the staining procedure may cause variations in the staining results shown in this Instructions for Use.

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, sample preparation, 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 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 production date and expiration date are printed on the product label.

References

1. Conn, J. (1977): Biological Stains, 9th ed., Baltimore: Williams and Wilkins Co.
2. Kiernan, J. A. (2008): Histological and Histochemical Methods, Theory and Practice, 4th ed., Banbury: Scion Publishing Ltd.
3. Carson, F. L., Hladik, C. (2009): Histotechnology: A Self-Instructional Text, 3rd ed., Chicago: ASCP Press.

Warnings and precautions regarding the materials contained in the product:	
	<p>H319 Causes serious eye irritation.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P308 + P313 IF exposed or concerned: Get medical advice/attention.</p> <p>P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.</p>

EOY-P-IFU_ENV5, 13.04.2026., IŠP

 Manufacturer	 Batch code	 Consult instructions for use	 European conformity
 Date of manufacture	 Catalogue number	 Caution	 Unique device identifier
 Use-by date	 Temperature limit	 <i>In vitro</i> diagnostic medical device	

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Version	Description / reason for change	Date
5	Revised acc. to Regulation (EU) 2017/746 - IVDR	13.04.2026.