Eosin Y Stock Solution

(Alcohol Based)

PRODUCT INFORMATION:

REF	
PS029	125ml
PS029	250ml
PS029	500ml
PS029	1L
PS029	2.5L

INTENDED USE

For Laboratory use only

Eosin Y Stock Solution is an alcohol-based stain that serves as a differential stain in most histopathology and cytopathology laboratories. The hematoxylin and eosin (H&E) staining method is the most frequently used method for staining histology specimens, where the Eosin Y solution can be used as a counterstain. Unstained structures are relatively low in contrast and are extremely difficult to distinguish under the light microscope. Eosin Y solution enhances the contrast of cytoplasmic components in tissue sections, helping to differentiate between different tissue types and identify pathological changes.

SUMMARY AND EXPLANATION

The staining mechanism behind the H&E staining is a physicochemical process. In the first step, the positively charged nuclear dye (hematoxylin) binds to the negatively charged phosphate groups of the nucleic acid of the cell nucleus. The nuclei will be dyed dark blue to dark violet. The second step is the counterstaining with negatively charged anionic Eosin Y, a xanthene dye. Eosin binds to the positively charged plasma proteins. Cytoplasm and intercellular substances are stained pink to red, while erythrocytes will appear with a yellow to orange colour.

DESCRIPTION

PathnSitu's 1% Eosin Y alcohol based is a stock solution provided in 5 different pack sizes, i.e 125ml, 250ml, 500ml, 1L and 2.5L

STORAGE AND HANDLING

Storage Recommendations: Store at Room Temperature. When stored at the appropriate conditions, the reagents are stable until expiry. **Do not use the reagents after the expiration date provided on the vial.**

To ensure proper regent performance, delivery, and stability, replace the dispenser cap after each use and immediately store the vials at the recommended conditions, keeping them away from sunlight and in an upright position.

During transport, short-term exposure to temperatures between 2-8 °C does not affect product performance.

REAGENT PREPARATION

Preparation of Eosin Y working solution. For 100ml of Eosin Y Working solution, add 25 mL of Eosin Y stock solution to 74.5 mL of 80% alcohol and mix well. While working in a fume hood, add 0.5 mL of glacial acetic acid and mix well. Store covered the room temperature.

PRECAUTIONS

1. Normal precautions carried out in handling laboratory reagents should be followed
2. This product should be used by qualified and trained professional users only
3. Refer to Material Safety Datasheet for any updated risk, hazard or safety information.
4. The product contains alcohol and is classified as highly flammable; it must be kept away from ignition sources
5. Dispose of waste observing all local, state, provincial or national regulations.
6. Do not use reagents after the expiration date.
7. Use protective clothing and gloves while handling the reagents.
8. Avoid contamination of reagents, as it may lead to incorrect results.

STAINING PROCEDURE

1. Cover tissue sections or cell preparations for 8-10 minutes with Hematoxylin.
2. Rinse under tap water to remove excess reagent.
3. Place the slides in 1% acid alcohol for 2-3 seconds or a gentle dip.

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4. Rinse the slides in running tap water for 2 minutes.
5. Place in bluing reagent (Alkaline solution, such as a weak ammonia solution, 0.08% in water) or running tap water until the stain is blue (approximately 60 - 120 seconds). Check under the microscope for optimal bluing.
6. Process slides for Eosin Y working solution for 3-5min
7. Dehydration with increasing the grades of Alcohol followed by mounting with DPX.

STAINING INTERPRETATION

Nuclei stain **dark blue** to **dark violet, While Cytoplasm, along with intercellular substances, stains pink to red.** Erythrocytes stain **yellow to orange.**

TROUBLESHOOTING

1. Follow the specific protocol recommendations according to the data sheet provided
2. Do not allow the section to dry out during the entire staining process
3. Gently mix all the reagents prior to use
4. Excessive or incomplete counterstaining may compromise the interpretation of the results
5. For the intensification of the eosin staining, an acidified working solution (using e.g. glacial acetic acid) should be used.
6. The use of a non-acidified solution will result in weakly stained cytoplasm and connective tissue structures; hence, it is advisable to follow the specified Reagent preparation protocol to achieve an optimal staining result.
7. For further questions, please contact PathnSitu Technical support at techsuport@pathnsitu.com or 040- 27015544.

LIMITATIONS AND WARRANTY

1. This product is intended for use only by authorised, trained, and qualified personnel.
2. A qualified and trained pathologist/personnel must interpret the results of the test.
3. Interpretation of test results must be made in conjunction with relevant background information and additional laboratory findings.
4. Always use the recommended volume and concentration of reagents to ensure complete coverage of the tissue section and to minimise the risk of false-positive or false-negative results.
5. Use appropriate buffers, instruments, consumables, and incubation conditions as recommended to achieve optimal staining performance.
6. It is strongly recommended to include known positive and negative controls when performing the test to ensure the validity of the results.
7. The product has been validated on formalin-fixed, paraffin-embedded (FFPE) tissues. The end user must establish performance on other tissue types.
8. Unexpected results may occur in untested tissues due to inherent variability in tissue components.
9. False-positive reactions may occur due to insufficient washing, inappropriate protocol conditions, or other contributing factors.
10. Maintain the product under the recommended storage conditions to preserve reagent stability and performance.
11. Do not use reagents that appear cloudy, discoloured, or show signs of contamination. Discard any components showing signs of deterioration.
12. Further dilution of this solution may lead to suboptimal staining.
13. This product is intended for single-use application only. Once applied to a tissue section, reagents should not be recovered or reused, as this may compromise test integrity and specificity.
14. PathnSitu makes no warranties beyond those expressly stated in the product description.
15. PathnSitu shall not be liable for property damage, personal injury, time or effort, or economic loss arising from the use of this product.
16. Please refer to the complete datasheet for all instructions, precautions, and additional product limitations.
17. For detailed information and specifications on individual components, please refer to the Product Material Safety Data Sheet (MSDS)

BIBLIOGRAPHY

1. Romeis - Mikroskopische Technik, Editors: Maria Mulisch, Ulrich Welsch,2015, Springer Spektrum, 19.
2. Theory and Practice of Histological Techniques, John D Bancroft, Marilyn Gamble, 2008, Churchill Livingstone ELSEVIER, 6th Edition
3. Laboratory Manual of Histochemistry, Linda L. Vacca, 1985, Raven Press
4. Staining Procedures, George Clark, 1981, Williams&Wilkins, 4th Edition

US Office: 7026 Koll Center Parkway, STE#211, Pleasanton, CA-94566, USA , USA Ph: +1 925-218-6939,
India Office:PS Heights, Plot# A-28/1/11B/B, Road#, 15, Industrial Development Area, Nacharam, Secunderabad-76
Phone: 040-27015544/33,Fax:040-2701 5544 , **E-Mail:** customerservice@pathnsitu.com **Web:** www.pathnsitu.com

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5. Basiswissen Histologie und Zytologie, Karl Heinz Stein, Hellmut Flenker, 1998, uZv, 2. Auflage
6. Histological & Histochemical Methods: Theory & Practice, J. A. Kiernan, 1990, Pergamon Press, 2nd Edition
7. Histological and Histochemical Methods, Theory and practice, J. A. Kiernan, 2015, Scion Publishing Ltd, 5th Edition
8. Conn's Biological Stains, R.W. Horobin, J.A. Kiernan, 2002, Biological Stain Commission Publication, 10th Edition

EXPLANATION OF SYMBOLS

LOT	Lot number / Batch number		Expiry
°C	Storage limitation	RT	Room Temperature
	Date of manufacture	REF	Catalogue number
	Manufacturer address		

US Office: 7026 Koll Center Parkway, STE#211, Pleasanton, CA-94566, USA , USA Ph: +1 925-218-6939,
India Office:PS Heights, Plot# A-28/1/11B/B, Road#, 15, Industrial Development Area, Nacharam, Secunderabad-76
Phone: 040-27015544/33,Fax:040-2701 5544 , **E-Mail:** customerservice@pathnsitu.com **Web:** www.pathnsitu.com