



Eosin, 2% w/v

S007

Intended use

Eosin, 2% w/v is used as staining solution for monochrome staining of microbes.

Composition**

Ingredients

Eosin Y	2.0 gm
Distilled water	100.0 ml

**Formula adjusted, standardized to suit performance parameters

Directions

- 1. Prepare a smear on a clear, dry glass slide.
- 2. Allow it to air dry and fix it with gentle heat.
- 3. Flood the slide with Eosin (S007).
- 4. Allow the stain to be in contact with the smear for 2-3 minutes or heat the preparation for less than half a minute.
- 5. Wash in slow-running water.
- 6. Blot dry and examine under oil immersion objective.

Principle And Interpretation

Eosin is most often used as a counterstain to hematoxylin in H&E (hematoxylin and eosin) staining. Eosin is a name of several fluorescent acidic compounds which bind to and from salts with basic, or eosinophilic, compounds like proteins containing amino acid residues such as arginine and lysine, and stains them dark red or pink as a result of the actions of bromine on fluorescein. In addition to staining proteins in the cytoplasm, it can be used to stain collagen and muscle fibers for examination under the microscope. Structures that stain readily with eosin are termed eosinophilic.

Type of specimen

Clinical samples: Blood sample

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines. After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/ eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. To preserve morphology of cells, films must be fixed without delay and the films should never be left unfixed for more than a few hours.

2. Methanol used as fixative should be completely water free. As little as 1% water may affect the appearance of the films and a higher water content causes gross changes.

3. The red cells will also be affected by traces of detergent on inadequately washed slides.

4. Sometimes when thick films are stained they become overlaid by a residue of stain or spoil by the envelopes of the lysed red cells.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature

Quality Control

- → Appearance : Reddish orange coloured liquid.
- \rightarrow Clarity : Clear with no insoluble particles.
- → **Microscopic Examination :** Hematoxylin Eosin staining is carried out where Eosin is used as one of the stains and staining characteristics is observed under microscope usi ng oil immersion lens.
- → **Results :** Nuclei: Blue coloured

Cytoplasm : Pink coloured

Storage and Shelf Life

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques

Reference

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3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

4. Shanhooltzer, C.J., P. Schaper, and L.R. Peterson. 1982. Concentrated Gram stain smear prepared with a cytospin centrifuge. J. clin. Microbiol.16:1052-1056

5. Staining Procedures; Fourth Edition; Williams & Wilkins; Baltimore

6. Newell J.E. and Duke e., 1961, Workshop on urine analysis and renal function studies, the routine examination of urine in laboratory, Chicago, American Society of Clinical Pathologist.

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. <u>3</u> 0°C 10° <u>C</u>	Storage temperature	8	Do not use if package is damaged
IVD	In vitro diagnostic medical device	CE	CE Marking
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