Acid Alcohol 0.5%/1%/3%

Reagent for differentiation during regressive hematoxylin staining method

MenidiMedica
Biotechnology Applications

70400-1000: 1 lt,
70400-5000: 5 lt.
70401-1000: 1 lt,
70401-5000: 5 lt.
70402-1000: 1 lt,
70402-5000: 5 lt.

24 months, storage at RT

Introduction

Acid alcohol is a differentiation reagent. It is used in various staining methods, most frequently in regressive hematoxylin eosin (HE) staining and provides excellent differentiation between nuclear and non-nuclear structures. Differentiation rinses dyes from cytoplasm while the nucleus remains stained. That occurs because the nuclear dye bonds stronger to the nucleus than to the cytoplasm. Regardless of the medium the sample is fixated in, Acid alcohol provides satisfying results. Amount of time spent for differentiation using Acid alcohol is always the same regardless of the fixative used for fixating the tested sample.

Product description

Acid alcohol solution used for differentiation during regressive staining consisting of optimal ratio of hydrochloric acid, ethanol and water.

Product use

- Acid alcohol is used for section differentiation as a part of regressive staining methods.
- Acid alcohol is used for monochromatic and polychromatic staining methods.
- One of commonly used staining methods with Acid alcohol is the hematoxylin and eosin method.
- Detailed procedure for hematoxylin-eosin staining is described in MenidiMedica Biotech Instructions for use for Hematoxylins used in progressive staining method.

Result

Acid alcohol is an acidic solution that can be used to differentiate between basic or cationic dyes. Because of higher dye affinity (aluminum-hematein complex) toward nucleus, Acid alcohol will destain cytoplasm.

Note

Time periods of staining procedures are not standardized. Intensity of staining depends on the period of immersion in the dye. Real staining protocol depends on personal requests and standard laboratory operating procedures.

Preparing the sample and diagnostics

Use only appropriate instruments for collecting and preparing the samples. Process the samples with modern technology and mark them clearly. Follow the manufacturer's instructions for handling. In order to avoid mistakes, the staining procedure and diagnostics should only be conducted by authorized and qualified personnel. Use only microscope according to standards of the medical diagnostic laboratory. In order to avoid an erroneous result, a positive and negative check is advised before application.

Safety at work and environmental protection

Handle the product in accordance with safety at work and environmental protection guidelines. Used solutions and out of date solutions should be disposed of as special waste in accordance with national guidelines. Chemicals used in this procedure could pose danger to human health. Tested tissue specimens are potentially infectious. Necessary safety measures for protecting human health should be taken in accordance with good laboratory practice. Act in accordance with signs and warnings notices printed on the product's label, as well as in MenidiMedica Biotech material safety data sheet.

Storing, stability and expiry date

Keep Acid alcohol in a tightly sealed original packaging at temperature of +15 to +25 °C. Do not keep in cold places, do not freeze and avoid exposing to direct sunlight. Date of manufacture and expiry date are printed on the product's label.

References

1. Conn, J. (1977): Biological Stains, 9th ed. Baltimore: Williams and Wilkens Co.
2. Llewellyn, B.D. (2009): Nuclear staining with alum hematoxylin, Biotechnic and Histochemistry, 85(1), p 159-177.
3. Sheehan, D.C. et Hrapchak, B.B. (1980): Theory and Practice of Histotechnology, 2nd ed St. Louise: CV Mosby Co.
4. Kiernan J. A. (2008) Histological and histochemical methods, 4th ed. Bloxham: Scion Publishing Ltd.

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