

HAEMATOXYLIN MAYER'S SOLUTION

PRODUCT CODE	844140
SYNONYMS	(Hemalum Mayer's)

Intended Use

Haematoxylin (Mayer's) is recommended for Immunohistochemical and cytochemical Staining (as Nuclear Counter Stain) (PAS Staining Procedure). It may also be used for routine Haematoxylin and Eosin Staining.

Principle And Interpretation

Hematoxylin is extracted from logwood with hot water, and then precipitated out from the aqueous solution using urea. Hematoxylin itself is not a stain. Its major oxidation product is Hematein that is a natural dye responsible for colour properties. Hematein can be produced by natural oxidation on exposure to light and air. Ehrlich's and Delafields hematoxylin solutions are examples of naturally ripened hematoxylin. Chemical oxidation uses sodium iodate (e.g., Mayer's hematoxylin) or mercuric oxide (e.g., Harris hematoxylin). Hematein is anionic, having poor affinity for tissue, and is inadequate as a nuclear stain without the presence of a mordant. The mordants used are salts of aluminum, iron, tungsten. Mayer's hematoxylin is alum hematoxylin, chemically ripened with sodium iodate. It can be used as a regressive stain like any alum hematoxylin. However, it is also useful as a progressive stain, particularly in situations where a nuclear counterstain is needed in the demonstration of glycogen, in various enzyme histochemical techniques. Haematoxylin and eosin are the principle stains used for the demonstration of nucleus and the cytoplasmic inclusions. Here, acid reacting components of the cell combine with alkaline dyes and the alkaline area react with acid dyes

PARAMETER	LIMIT
Description	Red-brown solution.
Solubility	Soluble in water.
Suitability for microscopy	To pass the test

Directions

A. Nuclear counter stain for Immunohistochemical staining:

1. Complete individual staining procedure (as desired). Rinse the slide with deionized water.
2. Stain the tissue section or the cell preparation with hematoxylin for 30-60 seconds.
3. Rinse with water to remove excess reagent.
4. Place in bluing reagent (alkaline solution such as a weak ammonia solution, 0.08% in water) until stain is blue (approximately 30 seconds).
5. Rinse in deionized water.
6. Section can be mounted in aqueous mounting media.

B. Hematoxylin and Eosin staining:

1. Prepare 95% alcohol solution.
2. Deparaffinize the tissue section and hydrate to water or fix and hydrate frozen sections.
3. Stain tissue section or cell preparation for 30-60 seconds with hematoxylin.
4. Rinse with water to remove excess reagent.
5. Place in bluing reagent until the stain is blue.
6. Rinse in deionized water.
7. If alcoholic eosin is used, place slide in 95% alcohol for 30 seconds.
8. Place eosin counter stain for 30-60 seconds.
9. Dehydrate in two changes each of reagent 95% alcohol, absolute alcohol and xylene for 2 minutes each.
10. Mount with synthetic mounting medium and examine the slide under microscope.



Product Specification

cdhfinechemical.com

Results

Nuclei: Blue

Note (s): Assay (if applicable) method mentioned.

WARNING

Hazard statements : May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation.

Precautionary statements

Prevention: Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. If eye irritation persists: Get medical advice/attention.

Disposal: Dissolve the chemical to be disposed, in water and allow it to run to waste, diluting with large quantities of water. The quantities greater than 10g should be dissolved in water and transferred to heavy metal waste drums for collection by specialist disposal company.

IMDG Code :

UN No. :

IATA :

Hazard Pictogram(s) :



GHS07

Replace date 21-Dec-2023