

HAEMATOXYLIN (EHRlich) STAINING SOLUTION

PRODUCT CODE 844070

Intended Use

Haematoxylin (Ehrlich) is used for nuclear stain for Immunohistochemical and cytochemical staining. It may also be used for the routine Hematoxylin and Eosin staining.

Principle And Interpretation

Hematoxylin is extracted from the heartwood of the logwood tree, Hemtoxylin campechianum. Hematoxylin (Ehrlich) solution contains the dye, hematin and the Aluminum potassium sulfate as a mordant which provides the stain colour (blue) glacial acetic acid controls the pH of the Solution. It can be used as nuclear counter stain (as in PAS staining etc.) Hematoxylin (Ehrlich) reagent is suitable for immunohisto chemical application. It is the slowest of progressive stains. For histochemical purposes, the progressive staining is commonly used in which dye selectively stains the nuclear chromatin without staining cytoplasmic structures. Slides are left in the hematoxylin solution only long enough to stain the nuclei. The excess dye should be removed by 'blueing' of the tissue. Initially the tissue sections are coloured either purple or reddish purple, on exposure to alkaline solution, the tissue section takes on the characteristic blue colour. Hematoxylin-Eosin is the commonly used stain, which is specific for certain substances of diagnostic importance. Here, acid reacting components of the cell combine with alkaline dyes and the alkaline area react with acid dyes. The stain is available for amyloid, lipids, inorganic substances such as iron and calcium, pigments like melanin and hemosiderin, carbohydrates and mucopolysaccharides.

PARAMETER	LIMIT
Description	Wine red solution.
Solubility	Miscible with water.
Suitability for microscopy	Passes test

Directions

A. Hematoxylin staining (H&E staining) :

1. Flame the slide and place in xylene for 3-4 minutes. Repeat xylene treatment with agitation.
2. Dip in 100% absolute alcohol for 30-60 seconds. Next dip in 90%, 80% and in 70% absolute alcohol. Wash in tap water and rinse in distilled water.
3. Stain tissue section or cell preparation for 2-5 min. with hematoxylin (Ehrlich).
4. Rinse with water to remove excess reagent.
5. Place in 0.5%(V/V) Hydrochloric acid
6. Rinse in distilled water for 30-60 seconds
7. Dip in dilute ammonia water till section appears blue.
8. Wash in tap water and place slide in 95% alcohol for 30 sec.
9. Place eosin counter stain for 30-60 sec. Drain the solution 10. Dip slide in 70% alcohol for 30-60 seconds.
11. Place in 95% alcohol for 30-60 seconds.
12. Place in absolute alcohol (2 changes, 30-60 seconds each).
13. Place the slide twice in xylene for 30-60 seconds.
14. Drain excess xylene and mount on DPX or Canada balsam with a coverslip.

The first 2 steps of the procedure are collectively referred to in all staining procedures as 'deparaffinize.' Steps 3-9 are referred to as 'staining'. The last 5 steps are referred to in all staining methods as 'dehydrate, clear, and mount.'

B. Hematoxylin Nuclear counter staining :

1. Deparaffinize the section.
2. Carry out the individual staining procedure (as desired).
3. Rinse the slide with deionized water.

4. Counter stain the tissue section with hematoxylin (Ehrlich) for 2-5 min.
5. Rinse with water to remove excess reagent.
6. Place in bluing reagent (alkaline solution such as a weak ammonia solution, 0.08% in water) until stain is blue (approximately 30 sec.).
7. Rinse in distilled water.
8. Section can be mounted in aqueous mounting media.

Results

A) Haematoxylin Stainig (H&E staining)

Nuclei : Blue colour

Cytoplasm : Pink colour

B) Haematoxylin Nuclear counter staining:

Nuclei: Blue colour

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

WARNING

HAZARD STATEMENTS : May cause respiratory irritation. Flammable liquid and vapour. Harmful if swallowed. Causes mild skin irritation. Causes eye irritation.

PRECAUTIONARY STATEMENTS :

Prevention : Ground/bond container and receiving equipment. Use only nonsparking tools. Take precautionary Measures against static discharge. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this

product. Keep away from heat/sparks/open flame - No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Wear protective gloves and eye/face protection.

Response : If eye irritation persists, get medical advice/attention. If skin irritation occurs, seek medical advice/attention. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment: refer to Label or MSDS. If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower. In case of fire, use foam for extinction.

Disposal : Allow to evaporate in safe open area (applicable for small quantities). The chemical should be burnt in a chemical incinerator equipped with burner and scrubber. If the volumes are larger than 500ml and no incinerator and site of evaporation is not available then transfer the waste chemical to waste solvent drum for collection by specialist disposal company.

Hazard Pictogram(s) :



GHS02



GHS07

IMDG Code :
UN No. :
IATA :

Replace date 21-Dec-2023