Mayer's Hematoxylin

Nuclear staining

IVD In-vitro diagnostic medical device CE

CND Code: W01030708

Catalog number	Unit size
05-M06002	500 ml
05-06002/L	1 l
05-06002E	2.5 l

Packaging

- 05-06002E
Primary container: white bottle in polyethylene terephthalate (PET). Useful capacity 2.5 liters. HDPE cap. Tamper evident cap.
The polyethylenterephthalate is a thermoplastic polymer of the polyester family. PET is an optimal oxygen, carbon dioxide and other gasses barrier. This material has an high resistance to ultraviolet radiation and an inertia toward the mainly chemical agents (solvents: xylene, limonene, liquid paraffines, alcohols, acids, bases etc.). It is biologically inert. It constitutes a good water and humidity barrier. It shows a great hardness and mechanical resistance.
The bottle has an optimal grip. The absence of the handles reduces space for storage. The anti-dropping cap permits a precise and clean use.
Secondary container: carton box.

- 05-M06002
Primary container: white bottle in High Density Polyethylene (HDPE). Useful capacity 500 ml. HDPE cap. Tamper evident cap.

- 05-06002/L
Primary container: white bottle in High Density Polyethylene (HDPE). Useful capacity 1 l. HDPE cap. Tamper evident cap.

Wear, water, alcohol and solvents resistant PVC label. Scratchproof ink resistant to water and alcohol.

Expected aim

Product for the preparation of cyto-histological samples for optical microscopy.

Application

Staining solution for nuclear staining of tissue sections fixed in formalin and embedded in paraffin. Perhaps it is the most nuclear staining solution used in routine histopathology. It gives a final color well balanced between nuclear and cytoplasmic staining in hematoxylin-eosin method.

Principle

In the Mayer's Hematoxylin the active chemical species is the complex formed by hematein (hematoxylin oxidized by potassium iodate) with potassium aluminum sulfate. This complex has a positive charge and is therefore able to bind to anionic sites present in the chromatin histone proteins.

Method

1)	Sections to distilled water	
2)	Mayer's Hematoxylin	5 minutes
3)	Colour change in tap water	3-5 minutes
4)	1% eosin (water solution)	5 minutes
5)	Tap water	5 minutes
6)	Dehydrate	
7)	Clearing agent and mount	

Results

Nuclei.....Purple
Cytoplasm.....Pink-red

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Components

Components	CAS	CE	Index
Certified hematoxylin	517-28-2	208-237-3	-
Potassium aluminium sulfate	7784-24-9	233-135-3	-
Potassium iodate	7758-05-6	231-831-9	-
Acetic acid	64-19-7	200-580-7	607-002-00-6
Stabilizers			

Warning and precaution

The product must be used exclusively by specialized technical operators.
Carefully read the information on the classification of dangerous substances on the label. Always refer to the safety data sheet where are available the information on the risks presented by the mixture, the precautionary measures during use, the measures first aid and the intervention in the event of accidental release.
Do not use if the primary container is damaged.

Storage

Store the preparation at room temperature. Keep the containers tightly closed.

Stability

After the first opening, the product is usable until the expiry date, if correctly stored. Validity: 2 years

Disposal

Hazardous preparation: observe all state and local environmental regulations regarding waste disposal.

References

- Lillie, R. D. Conn's Biological Stains. Williams and Wilkins; Baltimore. 9th ed.; p. 475, 1977
- Mayer, P.: Ueber das Faerben mit Haematoxylin, Mitt. Zool. Stat. Neapel, 10: 170-186; 1981.

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