



Protocol Booklet

Product Code(s)	HB6189 HB0758
Product Name(s)	Modified Mayer's Hematoxylin Eosin Y
Purpose	H&E Staining of Paraffin Embedded Tissue Sections

Please note: This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use



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Product Overview

Hematoxylin and eosin (H&E) staining is a commonly used technique in histology to visualize tissue structure under a microscope. Hematoxylin stains cell nuclei blue or purple, while eosin stains the cytoplasm and extracellular matrix pink, creating contrast that highlights cellular details. It is widely used in pathology to help diagnose diseases, including cancer, by revealing tissue architecture and abnormalities.

Components & Storage

Required stains:

SKU	Component	Quantity	Storage Temperature
HB0758	Eosin Y	1g	4°C
HB6189	Modified Mayer's Hematoxylin	250ml	RT

This protocol additionally requires the below. The volume of reagent required will depend upon the size of the staining jars used.

Component	Quantity	Storage Temperature
Ethanol	≈1L	RT
Histoclear	≈250ml	RT
Xylene	≈1L	RT
DPX	≈20ml	RT
Scott's Water*	≈1L	RT
Acid Alcohol*	≈1L	RT

* Please see recipe at the end of this protocol book.

Protocol

This protocol is based upon staining of paraffin embedded tissue sections. For information on fixing and embedding of sections please refer to our [Paraffin Embedded IHC Protocol \(IHC-P\)](#).

1. Incubate paraffin embedded sections in histoclear for 20 minutes
2. Incubate slides in 100% ethanol for 3 minutes
3. Incubate slides in 90% ethanol for 3 minutes
4. Incubate slides in 70% ethanol for 3 minutes
5. Rinse in tap water
6. Incubate in hematoxylin solution for 5 minutes
7. Rinse in running tap water for 5 minutes
8. Dip in acid alcohol (8-12 fast dips)
9. Incubate slides in tap water for 2 minutes
10. Incubate slides in Scott's water for 2 minutes
11. Incubate slides in tap water for 2 minutes
12. Incubate slides in Eosin working solution for 30-60s
13. Dip and swish in 70% ethanol
14. Dip and swish in 90% ethanol
15. Incubate slides in 100% ethanol for 3 minutes
16. Incubate slides in three changes of xylene for 1 minute per incubation
 - a. Carry out in a fume hood as xylene is extremely toxic
17. Mount with DPX and leave to dry in a fume hood overnight before imaging

Recipes

1% Eosin Stock

Reagent	Quantity
Eosin Y (HB0758)	1g
Ethanol	80ml
dH ₂ O	20ml

Please note: Store at room temperature.

Eosin Working Solution

Combine all ingredients and filter before use.

Reagent	Amount to add			Final concentration
	150ml	300ml	600ml	
1% Eosin Stock	45ml	90ml	180ml	0.3%
Ethanol	83.4ml	166.8ml	333.6ml	80%
dH ₂ O	20.85ml	41.7ml	83.4ml	20%
Glacial Acetic Acid	0.75ml	1.5ml	3ml	-

Please note: Store at room temperature.

Ethanol

Combine all ingredients.

	Ethanol Concentration		
	70%	90%	100%
Ethanol	700ml	900ml	1000ml
dH ₂ O	300ml	100ml	0ml

Please note: Store at room temperature in a flammables cabinet.

Acid Alcohol

Combine all ingredients.

Reagent	Amount to add			Final concentration
	50ml	250ml	1000ml	
Ethanol	35ml	175ml	700ml	70%
dH ₂ O	15ml	75ml	300ml	30%
10M HCl	125µl	625µl	2.5ml	25mM

Please note: Store at room temperature

Scott's Water

Combine all ingredients.

Reagent	Amount to add			Final concentration
	50ml	250ml	1000ml	
MgSO ₄	0.5g	2.5g	10g	83mM
NaHCO ₃	0.033g	0.165g	0.66g	7.85mM
dH ₂ O	50ml	250ml	1000ml	-

Please note: Store at room temperature



Guidelines, precautions, troubleshooting

Please contact our technical support team at technicalhelp@hellobio.com for advice on how to resolve any problems encountered when using this product. Observe safe laboratory practice and consult the safety datasheet. Please see the datasheet on our website for general guidelines, precautions, limitations on the use of the product.

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