DAKO® HEMATOXYLIN AND EOSIN (H&E)
STAIN SYSTEM
Ready-To-Use
CODE NO.: SL029

Intended Use
For In Vitro Diagnostic Use.

This histological staining reagent system is suitable for routine visualization of cellular morphology and cytoarchitecture in tissue sections using DAKO® automated platforms.

Summary and Explanation
The DAKO® H&E Stain System is used for the routine staining of histological specimens. Modified Mayer’s Hematoxylin contains a dye lake of hematein (the oxidation product of hematoxylin) and an aluminum mordant. This dye lake carries a positive charge and functions as a basic dye. Cell nuclei are basophilic and are thus stained blue. The Bluing Reagent enhances the blue color and also helps prevent future fading of the stain. Eosin Y is used as a counterstain and stains remaining tissue elements various shades of red.¹

Reagents Provided
The DAKO® H&E Stain System is provided packaged for use on the DAKO® Autostainer. Enough reagents are provided for 50 tests.

The DAKO® H&E Stain System contains the following reagents:

<table>
<thead>
<tr>
<th>Component</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified Mayer’s Hematoxylin</td>
<td>2 x 11 mL</td>
</tr>
<tr>
<td>Bluing Reagent</td>
<td>2 x 11 mL</td>
</tr>
<tr>
<td>Eosin Y</td>
<td>2 x 11 mL</td>
</tr>
</tbody>
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Materials Required, Not Provided
DAKO® Autostainer (Code No. S3400/S3800) and Special Stains software (v.1.2 or higher)
DAKO® Special Stains Wash Buffer 10X (Code No. SL001)
DAKO® Wash Buffer 10X (Code No. S3006)
DAKO® Silanized (Code No. S3003) or poly-L-lysine coated slides
Positive control tissues to use as process controls
Deionized water
95% alcohol
100% alcohol
Xylene or xylene-substitute
Coverslips
Permanent Mounting Medium (Code No. S3026)
Light microscope

Precautions
1. For In Vitro Diagnostic Use.
2. Use prudent laboratory practices when handling reagents. This includes avoiding unnecessary contact, and using personal protective equipment such as chemical resistant gloves, eye protection, and lab coat.
3. Refer to the Material Safety Data Sheet for additional safety and waste disposal information.

Storage
Store the DAKO® H&E Stain System reagents in the original containers at room temperature (20-25°C). Do not use after the expiration date stamped on the package. To avoid evaporation, keep the Special Stains reagents capped when not in use. If reagents are stored under any conditions other than those specified in the package insert, the user must validate them.
Reagent Preparation

Ready-to-use reagents. No preparation is required.

Specimen Collection

Specimens should be collected according to the guidelines published in the NCCLS document M29-T2, "Protection of laboratory workers from infectious diseases transmitted by blood and tissue."^2^ Process specimens for formalin fixation and paraffin embedding following procedures according to standard histotechnology practices.^3^

**Note:** For optimal results, specimens should be cut at 4 to 6 microns. Place cut sections towards the bottom of the glass slide at least ½ cm from the edges of the slide and label.

Positive control tissue should be run simultaneously with patient specimens.

Procedure

The programming steps and Incubation times are pre-programmed on the DAKO® Autostainer as follows:

1. Modified Mayer’s Hematoxylin – 10 minutes
2. Double Rinse
3. Bluing Reagent – 2 minutes
4. Rinse + Blow
5. Eosin Y – 1 minute
6. Double Rinse
7. 100% ethanol – 1 minute
8. Blow

Use a minimum of 400 µL of reagent per slide. Very large tissue sections may require extra reagent.

Prior to starting a run, deparaffinize slides and rinse in water. Place the reagents in the reagent rack according to the reagent map. Pre-soak slides in a working solution of DAKO® Special Stains Wash Buffer for 5 minutes. Place the slides on the DAKO® Autostainer and begin the run.

After the run is complete, dehydrate slides through 2 changes of 100% alcohol and clear in 2 changes of xylene or xylene substitute. Coverslip with permanent mounting media.

Remove and properly store all reagents at the completion of the run.

Results

Nuclei: blue
Cartilage and calcium deposits: dark blue
Cytoplasm and other tissue elements: varying shades of red
Blood: bright red

References