

# **Counterstain & Cover Slip**



#### Hematoxylin

Hematoxylin is a nuclear stain that is used as a differential stain for immunohistochemical procedures. Hematoxylin gives a contrasting color from that of the chromogen in the immunohistochemical stain. Hematoxylin also enables for more distinct viewing of the morphological characteristics of the section.

15 ml, ready-to-use	B-02
200 ml, ready-to-use	B-05

#### **Permanent Aqueous Mounting Medium**

Permanent Aqueous Mounting Medium is an aqueous-based mounting medium that can permanently mount the aqueous based chromogens. It is designed to act as a barrier between the chromogen stains and the organic solvent-based permanent mounting media. This solution hardens and polymerizes to protect the aqueous-based chromogens from dissolving when they are permanently mounted.

15 ml, ready-to-use	31B-02
50 ml, ready-to-use93	31B-03

## **Overview Guidelines: Counterstain & Coverslip**



Hematoxylin: 30 seconds–10 minutes; depends on concentration and pathologist preference

If the hematoxylin incubation time is too long or too short, then the following may occur:

<u>Dissatisfied pathologist</u> → difficulty distinguishing cellular morphology.

If the hematoxylin is exposed to light, then the following may occur:

<u>Dissatisfied pathologist</u> → oxidation creating crystalline precipitates that are observed under the microscope; these crystalline structures can be distracting and, in some instances, make accurate diagnosis difficult.

### Dehydration and Mounting:

- Dehydration: graded alcohol (3–10 minutes) and xylene or xylene substitute (5–15 minutes)
- Mounting Media: non-aqueous (permanent chromogens) vs. aqueous (nonpermanent chromogens)

No or inadequate dehydration can result in:

<u>Cloudy appearance</u>  $\rightarrow$  water is not fully removed creating a hazy appearance to the tissue; cellular morphology can also be affected.

Use of the wrong dehydration method or inappropriate mounting media can result in:

<u>Weak staining</u> → non-permanent chromogens can fade if used with alcohols or with non-aqueous mounting mediums.

For more counterstaining tips visit our educational website at www.cellmarque.com/troubleshooting