

**PRODUCT INFORMATION**  
**HEMATOXYLIN-NORMAL STRENGTH; HEMATOXYLIN-EXTRA STRENGTH**



**INTENDED USE**

Hematoxylin-Normal Strength and Hematoxylin-Extra Strength may be used as a nuclear stain in cytology and histology.

**PRODUCT SUMMARY**

Hematoxylin dye is oxidized to hematein, which is reacted with a metal ion (mordant) to form the active staining component. Since alum is typically used as the mordant, the solution is often referred to as hemalum. The hemalum attaches specifically to tissue phosphoric acids (DNA and RNA). ANATECH's Hematoxylin-Normal Strength and Hematoxylin-Extra Strength are equivalent to Gill 2 and Gill 3 formulations respectively. The alum concentration of ANATECH's Hematoxylin-Normal Strength and Hematoxylin-Extra Strength (i.e., any Gill formulations) allow the specific staining of chromatin and acidic mucins. If staining of acidic mucins is not preferred, use ANATECH Harris Hematoxylin Catalog #842.

**INGREDIENTS**

Acetic acid, aluminum sulfate, ethylene glycol, hematoxylin, sodium iodate

**WARNING**

Avoid contact with skin and eyes. Harmful or fatal if swallowed, call a physician immediately. Use with adequate ventilation.

For In Vitro Diagnostic Use.

**STORAGE**

Store at room temperature, away from direct sunlight. Keep containers tightly closed when not in use.

**DIRECTIONS FOR USE**

- Differentiation:** ANATECH Hematoxylin-Normal Strength and Hematoxylin-Extra Strength can be used progressively or regressively to produce crisp nuclear chromatin patterns against a colorless background. However, slide adhesives and/or the microscope slide glass itself may bind hematoxylin non-specifically. To remove this unwanted color, differentiate the stained slide with a weak acid solution such as ANATECH Decolorizer (Catalog #850). Alcoholic acetic acid (10% acetic acid in 95% alcohol) can be used for 1 minute without attacking hematoxylin bound to nucleic acids. For faster acting differentiation, use 0.1% hydrochloric acid in 95% alcohol for a few seconds.
- Bluing:** Hemalum acts as a pH indicator that is red at low pH and blue/purple at alkaline pH. The acid differentiation causes the tissue sections to turn red/burgundy in appearance. Exposing the tissue to an alkaline bluing solution such as ANATECH Bluing Reagent (Catalog #851) results in the final blue color. Exposure to extremely alkaline bluing solutions can result in loss of tissue sections from the glass slide.

The following staining schedule is designed to produce satisfactory results for most users. However, optimal staining can be achieved only with properly fixed and processed specimens. Inadequate fixation, and excessive exposure to

dehydrants, clearants, or heat can alter the quality of staining. Please call 1.800.ANATECH (1.800.262.8324) for assistance in obtaining optimal results.

**RECOMMENDED STAINING SCHEDULE**

- Clearant x 3 ..... 3 minutes each
- 100% alcohol x 2 ..... 1 minute each
- 95% alcohol ..... 1 minute
- 70% alcohol ..... 1 minute
- Distilled or deionized water ..... 1 minute
- ANATECH Hematoxylin
  - Hematoxylin-Normal Strength ..... 2.0 to 4.0 minutes
  - Hematoxylin-Extra Strength ..... 0.5 to 2.0 minutes
- Water ..... 1 minute
- ANATECH Decolorizer ..... 1 minute
- Water ..... 1 minute
- ANATECH Bluing Reagent ..... 1 minute
- Water ..... 1 minute
- 70% alcohol ..... 1 minute
- ANATECH Eosin-Y ..... 0.5 to 3.0 minutes
- 95% alcohol ..... 1 minute
- 100% alcohol x 3 ..... 1 minute each
- Clearant x 3 ..... 1 minute each

**DISPOSAL**

Dispose of all chemicals in accordance with Federal, state and local codes. In many localities, stain waste can be discarded into the sanitary sewer system after decolorization and neutralization. To prepare hematoxylin for drain disposal:

- Decolorize the solution by over-oxidizing with sodium iodate (add enough oxidant to turn the solution brown or yellow). **WARNING:** Do not use bleach to decolorize hematoxylin solutions as toxic chlorine fumes may be released.
- Neutralize with sufficient sodium bicarbonate to bring to pH 7.0 - 8.0, let sit overnight, and filter.
- The resultant solution is ready for disposal into the sanitary sewer system provided approval is granted by local authorities. The precipitate consists of aluminum hydroxides, which may be discarded as you would any solid chemical of low toxicity.

**SAFETY DATA SHEETS (SDS)**

SDS are available online at [www.cancerdiagnostics.com](http://www.cancerdiagnostics.com).

**ORDERING INFORMATION**

<b>Cat#</b>	<b>Packaging</b>	<b>Product</b>
812	1 gallon	Hematoxylin-Normal Strength
822	1 gallon	Hematoxylin-Extra Strength