



Cyto•Hematoxylin™

Intended Use

BBC presents modified Harris, Mayer's, Gill's and Cyto•Hematoxylin™. These hematoxylin are modified for specific nuclear staining of the highest precision and clarity. BBC offers the Histologist and Cytologist their choices of a progressive (Mayer's, Gill's, and Cyto•Hematoxylin™) or regressive stains (Harris Hematoxylin). Harris and Mayer's Hematoxylin are used primarily for histology; Cyto•Hematoxylin™ and Gill's I and II are used primarily for cytology; and Gill's Hematoxylin II & III and Cyto•Hematoxylin™ can be used for Cytologic or Histologic applications. BBC Hematoxylin are made without mercuric oxide. All BBC Hematoxylin formulations produce rapid and distinctive nuclear staining and all have been ripened to their peak of staining prior to shipping.

General Information

BBC is pleased to provide excellent hematoxylin for use in histology and cytology laboratories. Our hematoxylin are specifically prepared to produce optimum staining in rapid time. None of our hematoxylin contain mercury. We manufacture hematoxylin for histology and cytology, and we have hematoxylin formulated for regressive or progressive staining. Some of these include: Harris', Mayer's, Gill's, Cyto•Hematoxylin™ and others. All hematoxylin are manufactured according to strict quality control and usually are improved formulations to achieve superior performance and results.

Of particular interest is our Cyto•Hematoxylin™. It is the hematoxylin we recommend for routine staining in cytology. Hematoxylin is a basic dye (hematein-aluminum complex), and ours produces magnificently stained cytologic preparations. Our Cyto•Hematoxylin™ has the optimum oxidation, the proper pH, the ideal amount of special added differentiators, and the correct amount of aluminum for a long shelf life. It is quality controlled to be have the optimum staining power when shipped to you. Cyto•Hematoxylin™ produces precise nuclear staining, showing crisp nuclear membranes and nucleoplasm, exact staining of nucleoli, and just the right amount of staining of cytoplasmic carboxyl and sulfate groups to promote excellent counterstaining by EA-50 and EA-65 and OG-6.

We are pleased to offer these hematoxylin, and we will enjoy working with you to achieve excellent histologic and cytologic staining using our hematoxylin and eosin.

Packaging

Catalog #	Volume
3585	1 qt
3586	1 gal

* If using Rapid Pap Stain

Fixation Procedure

Cyto•Hematoxylin™ is used for nuclear staining of tissue sections and cytologic preparations. The most common fixative for gross tissues is 10% Neutral Buffered formalin. Consequently, we will give the fixation procedure for 10% NBF, although any fixative may be used.

10% Neutral Buffered Formalin is a non-coagulative additive fixative. It is probably the most commonly used fixative in the histology laboratory. The buffering capacity of our 10% Neutral Buffered Formalin enhances staining by H&E and immunohistochemistry.

1. The biopsies or tissues should be added directly to the 10% Neutral Buffered Formalin. No dilution or addition of other agents is necessary before use.
2. Small biopsies, such as bone marrow biopsies, should be fixed at least 3 hours prior to processing. Tissue blocks from large tissues, such as lymph nodes, spleen, breast or colon, are best fixed 10-12 hours, although fixation for 4-6 hours is often sufficient. Over-fixation is not a problem; however, tissues should generally not be fixed longer than one to two weeks.
3. No washing of tissues after fixation is necessary.
4. The fixed tissues should be processed by processing schedules that may vary from one to 12 hours. Standard recommended BBC tissue processing schedules are available upon request.
5. The schedule for staining tissues fixed with 10% Neutral Buffered Formalin is similar to that published in standard texts of histology. Our suggested schedule follows.

For fixation in cytology, alcohols are usually used. Following alcohol fixation, Cyto•Hematoxylin™ is used according to BBC's procedure for staining cytologic preparations.

Staining Procedure

BBC RECOMMENDED AUTOMATED AND MANUAL PAPANICOLAOU STAINING PROCEDURE FOR GYN and NON-GYN CYTOLOGIES (PROGRESSIVE HEMATOXYLIN STAINING)

<u>Step**</u>	<u>Solution</u>	<u>Time</u>
1.	95% Alcohol	30 seconds
2.	Running H ₂ O	40 seconds
3.	BBC Gill's 1 Hematoxylin	2 minutes
	or BBC Gill's 2 Hematoxylin	1 minute
	or BBC Cyto•Hematoxylin™	1 minute
4.	Running H ₂ O	1 minute
5.	BBC Blueing Solution•Cyto™	1 minute
6.	Running H ₂ O	1 minute
7.	95% Alcohol	30 seconds
8.	Running H ₂ O	1 minute
	* if Rapid Pap Stain	1 minute
	-then skip to step 13	
9.	OG-6	1 minute
10.	95% Alcohol	50 seconds
11.	95% Alcohol	50 seconds
12.	BBC EA-50 (Gill's Modified)	7 minutes
	or EA-65 (Gill's Modified)	7 minutes
	or EA-50 (Papanicolaou)	3 minutes
	or EA-65 (Papanicolaou)	3 minutes
13.	95% Alcohol	25 seconds
14.	95% Alcohol	25 seconds
15.	BBC S2•Cyto™	25 seconds
16.	BBC S2•Cyto™	25 seconds
17.	BBC S3™ or Xylene	30 seconds
18.	BBC S3™ or Xylene	30 seconds
19.	BBC S3™ or Xylene	30 seconds

*Prior to staining, Gyn cytology preparations fixed with a fixative containing Carbowax (polyethylene glycol 1450) should be placed for 10 minutes in 95% alcohol to remove the PEG.

BBC RECOMMENDED AUTOMATED AND MANUAL PAPANICOLAOU STAINING PROCEDURE FOR GYN CYTOLOGIES (REGRESSIVE HEMATOXYLIN STAINING)

<u>Step*</u>	<u>Solution</u>	<u>Time</u>
1.	Running H ₂ O	1 minute
2.	BBC Gill's 1 Hematoxylin	4 minutes
	or BBC Gill's 2 Hematoxylin	2 minutes
	or BBC Cyto•Hematoxylin™	1.5-2 minutes
3.	Running H ₂ O	1 minute
4.	BBC Acid Wash•Cyto™	1 minute
5.	Running H ₂ O	1 minute
6.	BBC Blueing Solution•Cyto™	1 minute
7.	Running H ₂ O	1 minute
8.	95% Alcohol	30 seconds
	* if Rapid Pap Stain	1 minute
	-then skip to step 14	
9.	OG-6	1 minute
10.	95% Alcohol	30 seconds
11.	95% Alcohol	30 seconds

Staining Procedure -Continued

12.	BBC EA-50 (Gill's Modified)	7 minutes
	or EA-65 (Gill's Modified)	7 minutes
	or EA-50 (Papanicolaou)	3 minutes
	or EA-65 (Papanicolaou)	3 minutes
13.	95% Alcohol	25 seconds
14.	95% Alcohol	25 seconds
15.	BBC S2•Cyto™	25 seconds
16.	BBC S2•Cyto™	25 seconds
17.	BBC S3™ or Xylene	30 seconds
18.	BBC S3™ or Xylene	30 seconds
19.	BBC S3™ or Xylene	30 seconds

* Prior to staining, Gyn cytology preparations fixed with a fixative containing Carbowax (polyethylene glycol 1450) should be placed for 10 minutes in 95% alcohol to remove the PEG.

BBC RECOMMENDED AUTOMATED AND MANUAL PAPANICOLAOU STAINING PROCEDURE FOR NON-GYN CYTOLOGIES (REGRESSIVE HEMATOXYLIN STAINING)

<u>Step*</u>	<u>Solution</u>	<u>Time</u>
1.	Running H ₂ O	1 minute
2.	BBC Gill's 1 Hematoxylin	4 minutes
	or BBC Gill's 2 Hematoxylin	2 minutes
	or BBC Cyto•Hematoxylin™	1.5 - 2 Minutes
3.	Running H ₂ O	1 minute
4.	BBC Acid Wash•Cyto™	1 minute
5.	Running H ₂ O	1 minute
6.	BBC Blueing Solution•Cyto™	30 seconds
7.	Running H ₂ O	1 minute
8.	95% Alcohol	30 seconds
	* if Rapid Pap Stain	1 minute
	-then skip to step 14	
9.	OG-6	1 minute
10.	95% Alcohol	30 seconds
11.	95% Alcohol	30 seconds
12.	BBC EA-50 (Gill's Modified)	7 minutes
	or EA-65 (Gill's Modified)	7 minutes
	or EA-50 (Papanicolaou)	3 minutes
	or EA-65 (Papanicolaou)	3 minutes
13.	95% Alcohol	25 seconds
14.	95% Alcohol	25 seconds
15.	BBC S2•Cyto™	25 seconds
16.	BBC S2•Cyto™	25 seconds
17.	BBC S3™ or Xylene	30 seconds
18.	BBC S3™ or Xylene	30 seconds
19.	BBC S3™ or Xylene	30 seconds

* Prior to staining, non-Gyn cytology preparations fixed with a fixative containing Carbowax (polyethylene glycol 1450) should be placed for 10 minutes in 95% alcohol to remove the PEG.