

20% Neutral Buffered Formalin

Catalog #0161

Intended Use

20% Neutral Buffered Formalin is intended as a general purpose fixative for all tissues to be examined by light microscopy. It is useful for surgical tissues and necropsy specimens.

General Information

20% Neutral Buffered Formalin is a non-coagulative additive fixative. It is the standard fixative used in most laboratories, and it produces the set of histologic artifacts that Pathologists are trained to interpret professionally. 20% Neutral Buffered Formalin penetrates quickly, but fixes slowly. When used as a primary fixative and followed by secondary fixation by alcohol, it produces a marvelous set of consistent histologic artifacts and results. Our formulation is enhanced by buffering capacity that optimizes histologic results by light microscopy and immunohistochemistry.

Packaging

Catalog #	Volume
0161	20% NBF 4X1 Gallon Cube
0160	20% NBF 5 Gallon Cube

Fixation Procedure

20% Neutral Buffered Formalin is a non-coagulative additive fixative. It is intended to be used as the standard fixative in the histology laboratory. The buffering capacity of our 20% Neutral Buffered Formalin enhances staining by H&E and immunohistochemistry.

1. The biopsies or tissues should be added directly to the 20% Neutral Buffered Formalin. No other 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. Large tissues, such as tissue blocks from lymph nodes or spleen or 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 the standard processing schedules that may vary from one hour to 12 hours. Standard recommended BBC tissue processing schedules are available on request.
5. The schedule for staining tissues fixed with 20% Neutral Buffered Formalin is similar to the schedule published in standard texts of histology. Our suggested schedule follows.
6. Disposal of 20% Neutral Buffered Formalin should be the same as that used for fixatives containing formaldehyde. Consult your local waste water disposal authority for specific instructions.

Staining Procedure

BBC RECOMMENDED AUTOMATED AND MANUAL HISTOLOGY STAINING PROCEDURE FOR HARRIS HEMATOXYLIN AND EOSIN

*Initially deparaffinize tissue sections with BBC S1™ or Xylene

Step *	Solution	Time
1.	100% Alcohol	20 seconds
2.	100% Alcohol	20 seconds
3.	95% Alcohol	20 seconds
4.	95% Alcohol	20 seconds
5.	70% Alcohol	20 seconds
6.	Running H ₂ O Wash	30 seconds
7.	BBC Harris Hematoxylin.....	3-5 minutes
8.	Running H ₂ O Wash	1 minute
9.	BBC Acid Wash•Histo™	1 minute
	or BBC Acid Alcohol•Histo™	2-3 dips
10.	Running H ₂ O Wash	1 minute
11.	BBC Blueing Solution•Histo™	15 seconds
12.	Running H ₂ O Wash	1 minute
13.	70% Alcohol	30 seconds
14.	BBC Special Eosin I™ or II™, or Eosin Y, or Eosin Y w/ Phloxine B.....	45 seconds
15.	BBC S2•Histo™	20 seconds
16.	BBC S2•Histo™	20 seconds
17.	BBC S2•Histo™	20 seconds
18.	BBC S2•Histo™	20 seconds
19.	BBC S2•Histo™	20 seconds
20.	BBC S3™ or Xylene.....	20 seconds
21.	BBC S3™ or Xylene.....	30 seconds
22.	BBC S3™ or Xylene.....	30 seconds
23.	Mount and coverslip with Optic Mount I™ or an appropriate mounting medium.	

Note: Each of these reagents can be intermixed and used with other staining sequences and other manufacturer's reagents.