



# Cyto•Fluid Fix™

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## Intended Use

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Cyto•Fluid Fix™ is designed for body fluids and cytospin preparations. Erythrocytes are lysed for clear viewing of nucleated cells.

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## General Information

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Cyto•Fluid Fix™ is a fixative specially formulated to produce improved fixation of body fluids and cytospin preparations. It combines the coagulant fixative qualities of alcohol with other fixation enhancements to produce better nuclear and cytoplasmic fixation. Erythrocytes are partially lysed and do not obscure the nucleated cells of interest. Traditional cytology stains using progressive hematoxylin, EA-50, and EA-65 produce distinct nuclear and cytoplasmic staining. Nuclear and cytoplasmic boundaries are precise and well defined. Cytologists and Pathologists will appreciate the improved fixation and staining qualities. Cyto•Fluid Fix™ is the fixative of choice for all body fluid and cytospin preparations.

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## Packaging

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| Catalog # | Volume     |
|-----------|------------|
| 2200      | 1 gal      |
| 2210      | 5 gal cube |

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## Fixation Procedure

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### BBC RECOMMENDED PROCEDURE FOR CYTOCENTRIFUGE PREPARATIONS USING BBC CYTO•FLUID FIX™ AND BBC PAP•FIX™

1. Transfer 15 mL of specimen into a disposable centrifuge tube. If less than 15 mL of specimen is available, transfer the entire specimen to a centrifuge tube.
2. Balance the specimen tube with a balance tube in a standard centrifuge and spin at low g for 5 minutes.
3. Pipette off and discard supernatant.
4. Re-suspend cell pellet in one of the following ways:
  - a. To prepare air-dried smears: re-suspend cell pellet in 0.5 mL (10 drops) of saline.
  - b. For bloody or proteinaceous specimens: re-suspend the cell pellet in a few drops of saline; then add an equal amount of BBC Cyto•Fluid Fix™.
  - c. For all other non-bloody and non-proteinaceous cell pellets: add 0.5 mL (10 drops) of BBC Cyto•Fluid Fix™.
5. Assemble the blank slides, filter cards and cytospin chambers into a "sandwich" and insert into the cytospin.

6. Centrifugation of re-suspended Cell Pellets:
    - A. Non-cerebrospinal cell pellets:
      1. Using a Pasteur pipette, place 2-3 drops into each of the cytospin chambers. The number of drops is determined by the cellularity of the specimen.
      2. Add enough BBC Cyto•Fluid Fix™ to total 0.5 mL.
      3. Spin at approximately 1000 rpm for 5 minutes.
    - B. Cerebrospinal Fluid Cell pellets:
      1. Using a Pasteur pipette, place 15 drops of Cyto•Fluid Fix™ into each of the cytospin chambers.
      2. Add enough BBC Cyto•Fluid Fix™ to total 0.5 mL.
      3. Spin at approximately 650 rpm for 2 minutes.
  7. Remove the slides as soon as cytospin stops. Before removing the filter card, spray the area on the slides where cells are located with BBC Pap•Fix™.
  8. Carefully disassemble the cytospin "sandwich" and place the slides horizontally with the specimen side up to dry before removing the filter card.
  9. Stain by the Papanicolaou method or as desired.
  10. Prepare a cell block with the remaining un-centrifuged specimen by using BBC Cyto•CellBlock Fix™.
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### BBC RECOMMENDED PROCEDURE FOR CYTOCENTRIFUGE PREPARATION OF CEREBROSPINAL FLUID (CSF) USING BBC CYTO•FLUID FIX™ AND BBC PAP•FIX™.

- I. Preparation of Air-dried Cytospins of CSF:
  1. Using a Pasteur pipette, place approximately 15 drops of CSF specimen in each chamber of the cytospin.
  2. Assemble the cytospin "sandwich" and spin at approximately 650 rpm for 2 minutes.
  3. Disassemble the cytospin "sandwich" and place the slides horizontally to dry with the specimen side up.
  4. Stain with a Romanowsky-type dye such as BBC Rapid•Stain™.
- II. Preparation of Fixed Cytospins of CSF:
  1. Using a Pasteur pipette, place 15 drops of CSF in each cytospin chamber.
  2. Add enough BBC Cyto•Fluid Fix™ to total 0.5 mL.
  3. Spin at approximately 650 rpm for 2 minutes.
  4. Remove the slides as soon as the cytospin stops. Before removing the filter card, spray the centrifuge cell location on the slides with BBC Pap•Fix™.
  5. Carefully disassemble the cytospin "sandwich" and place the slides horizontally to dry with the specimen side up.
  6. Stain with the Papanicolaou method or with a Romanowsky-type dye (e.g., BBC Rapid•Stain™).

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## Staining Procedure

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

| <u>Step</u> | <u>Solution</u>                          | <u>Time</u> |
|-------------|--|-------------|
| 1.          | 95% Alcohol.....                         | 30 seconds  |
| 2.          | Running H <sub>2</sub> O.....            | 40 seconds  |
| 3.          | BBC Gill's 1 Hematoxylin.....            | 2 minutes   |
|             | <b>or</b> BBC Gill's 2 Hematoxylin ..... | 1 minute    |
|             | <b>or</b> BBC Cyto•Hematoxylin™ .....    | 1 minute    |
| 4.          | Running H <sub>2</sub> O.....            | 40 seconds  |
| 5.          | BBC Blueing Solution•Cyto™ .....         | 1 minute    |
| 6.          | Running H <sub>2</sub> O.....            | 1 minute    |
| 7.          | 95% Alcohol.....                         | 30 seconds  |
| 8.          | BBC OG-6 .....                           | 1 minute    |
| 9.          | 95% Alcohol.....                         | 50 seconds  |
| 10.         | 95% Alcohol.....                         | 50 seconds  |
| 11.         | BBC EA-65 .....                          | 40 seconds  |
| 12.         | 95% Alcohol.....                         | 25 seconds  |
| 13.         | 95% Alcohol.....                         | 25 seconds  |
| 14.         | BBC S2•Cyto™ .....                       | 25 seconds  |
| 15.         | BBC S2•Cyto™ .....                       | 25 seconds  |
| 16.         | BBC S2•Cyto™ or Xylene .....             | 30 seconds  |
| 17.         | BBC S2•Cyto™ or Xylene .....             | 30 seconds  |
| 18.         | BBC S2•Cyto™ 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.