

WHOLE BLOOD SAMPLE PRESERVATION**7.1 PURPOSE**

To preserve whole blood samples for further analysis and/or long term storage.

7.2 RESPONSIBILITY

Forensic Science Examiners (however titled) from the Division of Scientific Services who have been trained in the discipline of whole blood sample preservation according to FB SOP-26 (Training Manual and Checklist).

7.3 SAFETY

Use appropriate measures for the proper handling of a biohazardous material according to GL-2 (Safety Manual).

7.4 DEFINITIONS

- A. FTA: Fast Technology for Analysis of Nucleic Acids
- B. EDTA: Ethylenediaminetetraacetic Acid
- C. PTT: Purple Top Tube
- D. RTT: Red Top Tube

7.5 PROCEDURE**7.5.1: Materials**

- A. FTA Micro cards with provided foil pouches
- B. Centrifuge tubes
- C. Micropipet and tips
- D. Wooden sticks
- E. Desiccant packets
- F. Appropriate disinfecting solution

7.5.2: Procedures

- A. Record all written information on the appropriate Quality Record Worksheet (Appendix 1).
- B. Label the card with the Laboratory ID#, item #, donor name, date, initials of examiner and the type of tube (PTT, RTT).
- C. Label the foil pouch with the Laboratory ID#, item #, donor name and type of tube.
- D. Prior to sample removal:
 - 1. For samples collected in purple top tubes (EDTA) or other tubes containing anti-coagulant, thoroughly mix the blood.

2. For samples collected in red-top tubes (no anticoagulant), break up the blood clot with wooden sticks.
- E. Remove a maximum of 125µl of the whole blood with a micropipet and place on an FTA card, making the stain as concentrated as possible.
 1. Air dry the bloodstain card in the designated cabinet.
 2. Clean the micropipet after each use with the appropriate disinfecting solution described in FB SOP-21 (General Chemical and Reagent QC), followed by ethanol.
- F. Create the bloodstain in LIMS and print out a barcode. Place the barcode on the pouch.
- G. The pouch and bloodstain card will be verified for labeling prior to being transferred into storage. This verification will be conducted by a second examiner (however titled). The second examiner will date and initial the LIMS transfer sheet(s) for this storage location to document this verification.
- H. Place the dried bloodstain card in the labeled foil pouch with a desiccant packet.
- I. Seal the pouch and initial the seal.
- J. Transfer and store the bloodstain in the "FTA Blood Storage" location.
- K. When necessary, aliquot approximately 125ul of whole blood into a labeled centrifuge tube, create in LIMS, have a second examiner verify as described above and store in the freezer.
- L. For OCME bloods submitted with additional autopsy samples, refer to FB SOP-06 (Autopsy Sample Preservation).
- M. For additional information, please see FB SOP-02 (Sexual Assault Evidence Collection Kit Examination).

7.5.3: Suggested Report Statement

A stain was made from a portion of item # [] (known blood sample).

7.6 REFERENCES

- A. Whatman FTA cards provided Technical and Protocol Information sheet
- B. GL-2 (Safety Manual)