

SPOTTING WHOLE BLOOD ONTO FTA™ CARDS

Background

Whole blood samples are collected in EDTA (purple top) vacutainer tubes. A unique bar code number is assigned to each sample. To isolate and preserve DNA from whole blood samples, blood is spotted onto FTA™ stain cards.

Summary of Procedure

Small volumes of whole blood are distributed to two circles of a FTA™ card labeled with the corresponding sample bar code number. Each stain card is permitted to dry for a minimum of one hour in a biosafety cabinet before it is stored in an envelope labeled with the corresponding bar code number.

Sample Handling

All biological samples and DNA must be treated as potentially infectious. Appropriate sample handling and disposal techniques should be followed. See:

- **Safety Manual**, *Universal Precautions*
- **Quality Assurance Manual**, *General Sample Control and Forensic Sample Preservation Policy*
- **Analytical Procedures Manual**, **Forensic Evidence Handling**

Reagents and Materials

See **Appendix B** for reagent preparation

Conflikt
Eliminase
Biohazard waste receptacle
FTA™ Treated Bloodstain Cards
Ultra Stain Blood Storage envelopes
Transfer pipettes
Pipette and filtered tips
Permanent marker (fine point)
Biological safety cabinet
Test tube rocker
Gloves
Lab coat

Reagents and Materials – Storage and Handling

All reagents and materials are kept under sterile conditions. Store all reagents according to the manufacturers' recommendations.

Do not use reagents beyond the listed expiration dates. Date and initial all reagents when put in use. Record in the **Reagent Log**.

Procedure

1. Remove samples from the secure refrigerator. Document on the appropriate **Chain of Custody Worksheet**.
2. Decontaminate the working surface of the biological safety cabinet with Conflikt and Eliminase.

3. Place the sample tubes on the test tube rocker and rock for a minimum of 30 minutes. Samples should be well mixed and at room temperature.
4. Label FTA™ cards with the appropriate bar code numbers in the order that the spotting will be performed.
5. Once the sample tubes have been mixed, remove the first sample tube and verify the bar code number with a witness. Carefully remove the cap.
6. Using a filtered tip, pipette approximately 50ul spots onto the FTA card.
7. Place the stain card away from the immediate work area and the biohazard waste receptacle to dry.
8. Remove the pipette tip and place it in the biohazard container.
9. Repeat steps 5 through 8 for each sample tube, being careful **never** to transfer material from one sample to another.
10. When all stain cards have been spotted, return the blood sample tubes to secure refrigerated storage.
11. Allow blood spots to dry, place the FTA™ card in an UltraStain Blood Storage envelope labeled with the matching bar code number and file in numerical order each envelope in secure storage or proceed to the first step of DNA Analysis. Document analysis start date on the relevant COC document.
12. Decontaminate the interior surface of the biosafety cabinet with Conflikt and Eliminas and turn on the UV lamp for 30 minutes.

Reference

Life Technologies at <http://www.lifetech.com> Fitzco FTA™ Treated Bloodstain Cards
catalog number 10786-010; product information