Document Title: Extraction of Samples for Semen
Controlled: Yes, with red stamp present
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Prepared By: _____ Date: _____

Approved By: _____ Date: _____

A. PURPOSE:

To remove the sample from the substrate and prepare the sample for subsequent testing for semen.

B. RESPONSIBILITY:

Forensic Science Examiners from the Connecticut State Forensic Science Laboratory who have been trained in the discipline of extracting samples for semen according to SOP-FB-31 (Training Manual).

C. DEFINITIONS:

1. RSID: Rapid Stain Identification
2. PBS: Phosphate Buffered Saline

D. PROCEDURE:

These extractions will be performed at the discretion of the examiner based on the submitting agency requests, case information and condition of the evidence.

1. Materials:
   a. RSID™-Semen Extraction Buffer
   b. RSID™-Universal Buffer
   c. PBS
   d. Spermic semen swab
   e. Epithelial cell swab
   f. Microcentrifuge tubes
   g. Shaker
   h. Ultrasonic Bath
   i. Centrifuge

2. Procedure:
   a. Extraction in RSID™-Universal Buffer, RSID™-Semen Extraction Buffer, or PBS
      aa. Extract a portion of the questioned sample or stain in a microcentrifuge tube with 300 µl of universal buffer, extraction buffer or PBS.

      For very limited sized stains extract in a volume of 150µl for RSID™-Semen or 175µl for p30 ABAcard®.

      bb. Extract for a minimum of two (2) hours on a shaker at room temperature or overnight at 4°C. A 30 minute ultrasonic bath step may be included during the extraction process.

D. 2. b. Extraction for Sperm Hy-Liter Positive Control and Epithelial Cell Sample

aa. Place a known spermic semen swab into a microcentrifuge tube.

bb. Place a known buccal swab into another microcentrifuge tube.

cc. Add 300µL of PBS to each tube.

dd. Incubate for 30 minutes in the ultrasonic bath.

E. REFERENCES:

1. Independent Forensics, Sperm Hy-Liter™ *PLUS* Technical Information and Protocol sheets.

2. Independent Forensics, Sperm Hy-Liter™ Recommended Laboratory Recipes and Procedures, p 1-12.

3. Jennifer Old Ph.D., Dina Mattes, Pravat Boonalangoor Ph.D. and Karl Reich Ph.D, Development Validation of Spermtelligence™, Software Aided Identification of Human Sperm using Sperm Hy-Liter™ Stained Slides, p 2-13.

4. Connecticut State Forensic Science Laboratory, Sperm Hy-Liter™ Internal Validation, 2010.

5. Independent Forensics, Rapid Stain Identification of Human Semen (RSID™ - Semen) Technical Information and Protocol sheets.

6. Old, Dr. Jennifer, Schweers, Dr. Brett A., Boonlayangoor, Dr. P. W., Reich, Dr. Karl, Developmental Validation Studies of RSID™-Semen Lateral Flow Immunochromatographic Strip test for the forensic detection of Seminal Fluid, p 1-36.

7. Connecticut State Forensic Science Laboratory, RSID™ - Semen Internal Validation, 2010.

8. Independent Forensics, RSID™ - Universal Buffer Technical Information and Protocol sheet.

9. Connecticut State Forensic Science Laboratory, RSID™ - Universal Buffer Internal Validation, 2011.