Independent Forensics Multi-fluid Field Kit for Rapid Stain Identification of Saliva, Semen, and Blood (RSID™) Provided Protocols

General Guidelines

The RSID™- Saliva, Semen, and Blood Field Kits are designed for fast, easy, and reliable detection of human body fluids from stains encountered at crime scenes. RSID™- Field Kit testing will assist investigators in determining which samples are the most likely to yield DNA profiles. All of the materials needed to perform stain analysis on 15 individual samples in the field are provided in one box, including 5 cassettes each for saliva, semen, and blood. Single use, individually packaged components eliminate the possibility of sample contamination.

Components of the Multi-fluid RSIDTM- Field Kit -Fifteen clear plastic bags - each bag contains the components needed to test an individual stain: RSIDTM- cassette, plastic transfer pipette, and premeasured extraction tube with (750 μ l) extraction/running buffer. Bag components are intended for single use only.

Sample Collection

When possible, stains deposited on fabric or other substrates that can be easily cut, should be dissected to preserve a portion of the stain for DNA analysis.

The recommended cutting size for the RSID[™]- Field Kit is approximately 30-40 mm². The following figures demonstrate the recommended cutting size:









Stains deposited on substrates that cannot be easily cut (*e.g.*, glass, metal) should be sampled by sponging the stain with a swab moistened in the provided water. The swab can be moistened by quickly dipping the swab into the water. When analyzing a large stain, reserve a portion of the stain for possible DNA analysis.

When testing a small stain, sponge the entire stain with a moistened swab and cut a portion of the swab batting into the extraction/running buffer tube. The remainder of the swab should be preserved for additional analysis (e.g., DNA analysis, etc.)

Protocol for RSID SALIVA & RSID SEMEN tests:

- 1. Remove plastic bag containing single use components.
- 2. Take cutting (from stain or swab) and place it into the extraction tube.
- 3. Close extraction tube and shake vigorously for 10 seconds, longer incubation times are optional*.
- 4. After incubation, remove RSID™-Saliva cassette from sealed foil pouch.
- 5. Using provided transfer pipette, place **5 drops** of extraction solution into the sample well of the cassette (circular well indicated by "S" on the cassette). Note time.
- 6. After 10 minutes, score cassette as positive or negative based on the presence or absence of a red line at the test position. See *Result Interpretation*, below.
- 7. Document the results and information regarding the sample. We recommend photo documentation prior to discarding used cassette.

*We have obtained similar results with incubation times ranging from 10 seconds to 1 hour. Room temperature extraction of forensic samples for a minimum of 10 seconds is sufficient for detection of α -amylase with RSIDTM-Saliva and semenogelin with RSID TM-SEMEN. Longer incubation times are optional.

Protocol for RSID BLOOD:

- 1. Remove plastic bag containing single use components.
- 2. Take cutting (from stain or swab) and place it into the extraction tube.
- 3. Close extraction tube and shake vigorously.
- 4. Incubate sample in extraction buffer for a minimum of 20 minutes at room temperature.*
- 5. After incubation / soak step, remove RSID™-Blood cassette from sealed foil pouch.
- 6. Vigorously shake extraction tube and using provided transfer pipette, place **5 drops** of extraction solution into the sample well of the cassette (circular well indicated by "S" on the cassette). Note time.
- 7. After 10 minutes, score cassette as positive or negative based on the presence or absence of a red line at the test position. See *Result Interpretation*, below.
- 8. Document the results and information regarding the sample. We recommend photo documentation prior to discarding used cassette.

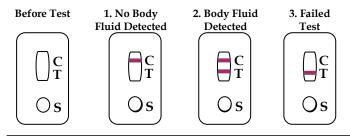
Result Interpretation (turn page over)

^{*}Longer incubation and soak time are recommended for older evidence samples or for questioned samples with minimal biological material.

Result Interpretation

 $\mathsf{RSID}^{\scriptscriptstyle\mathsf{TM}} ext{-}\mathsf{Saliva}$, Semen, and Blood cassettes should be evaluated exactly 10 minutes after sample addition. Possible results are:

- 1. A single red line at the Control (C) position indicates that *no body fluid* was detected.
- 2. Two red lines (at both the Control, C, and Test, T, positions) indicate that *body fluid* was detected.
- 3. A single red line at the Test (T) Position indicates a failed test, no conclusion possible.





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