Intermountain Forensics	SOP #	SER-200
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Forensic DNA Technical Leader Approval	**Issue Date**	
	7/9/20	

Substrate Removal and Supernatant Collection

1. Purpose

This procedure is used to remove cells from a substrate in preparation for multiple tube combinations and supernatant collection for blood, saliva, or semen testing, when applicable.

2. Summary

TE Buffer is added to samples in need of multiple tube combinations and/or supernatant collection. Samples are shaken in a thermomixer without heat to remove cells and rehydrate body fluids, if present. Samples are centrifuged to pellet any cells present, supernatant is removed for testing, cell pellets are dislodged, and are then combined, if necessary for multiple substrate tube items, before proceeding to extraction.

3. Procedure

Define the procedures in bulleted format.

Combination/Supernatant Collection Procedure:

1. Add a sufficient amount of TE buffer to cover the substrate to the spin basket, at least 250µL.
2. Agitate for 15 minutes in a thermomixer at 600rpm with no additional heat.
3. Centrifuge for 5 minutes at max speed to allow the solution to pass through the basket and pellet the cells.
4. Remove the of supernatant leaving ~50µL and transfer to the supernatant tube. Use caution not to disturb the cell pellet.
5. Dislodge the pellet by vortexing or pipexing and combine multiple substrate tubes, if applicable.
    a. Depending on the number of multiple substrate tubes, the cells may be re-pelleted and excess buffer removed.
6. Samples are ready for appropriate extraction procedure.

4. References

N/A

5. Definitions

Pipexing: Mixing the tube contents by pipetting up and down multiple times.
Supernatant: liquid portion of solution above a cellular pellet after centrifugation. The supernatant is used for immunoassay serological tests.