



Intermountain Forensics

SOP #

NRM-200

Revision #

02

Forensic DNA Technical Leader Approval

Issue Date

03/01/2023

Extract Combination with GenTegra® Tubes

1. Purpose

To provide directions for sample dry-down for the purposes of combining multiple extractions from the same sample source for the purposes of increasing DNA concentration.

2. Summary

GenTegra®-DNA tubes contain a patented Active Chemical Protection™ (APC) formulation designed to prevent denaturation and degradation of DNA when it is exposed to conditions outside the biological micro-environments. Adding DNA extract to a GenTegra® tube provides an environment to allow completely drying out a sample and rehydrating up to five times. This procedure provides the process for combination of extracts from the same sample source .

3. Procedure

1. Gather all extracts to be combined.
 - a. The associated reagent blank must be dried down.
2. Label the GenTegra®-DNA tube with the sample identification number for the extracts being combined.
3. Pipette the DNA extracts into the GenTegra®-DNA tube.
 - a. If completing a combination for more than one sample source, only one GenTegra®-DNA tube can be open at a time and only the DNA extracts associated with the same sample source can be opened simultaneously.
4. Mix by pipette ~10 times to solubilize the GenTegra®-DNA coating.
5. Mark the extract level on the outside of the tube.
6. Open tube caps
 - a. Screw top tube lids must be labeled and stored with the top of the lid facing up on a clean surface, to prevent contamination.
7. Arrange sample tubes on the tube rack so that there is sufficient room so that samples do not touch each other and for sample removal.
8. Place the open samples in a 60°C incubator overnight or until completely dry.
9. **Add water into the tube to bring the final volume to** a minimum of 40 µL to rehydrate.
 - a. Attempt to coat sides of the tube from above the original combined liquid level with the water as it is being dispensed.
10. Mix by vortex for 1 minute.
11. Incubate at room temperature for 15 minutes prior to proceeding to additional processing steps (i.e., quantitation, amplification).

4. References

GenTegra®-DNA User Guide Version H

5. Definitions

N/A