



Intermountain Forensics

SOP #

ADM-118

Revision #

01

Forensic DNA Technical Leader Approval

Issue Date

Aria Walker

11/28/2022

Handling of Test Item – Astrea Santa Cruz (IMF-ASC)

1. Purpose

This document describes the policy for the transportation, receipt, handling, storage, retention, disposal, and protection of the integrity of test items for the Intermountain Forensics – Astrea Santa Cruz (IMF-ASC) laboratory.

2. Summary

The transportation, receipt, handling, protection, storage, retention, disposal and return of test items of IMF-ASC are designed to include all provisions necessary to protect the integrity of the test items, and to protect the interests of the laboratory and the customer through the use of tracking mechanisms and define procedures.

3. Procedure

Sample Accession

1. Once samples arrive at Astrea Forensics' facility via mail, notify IMF-SLC that the shipment arrived.
2. Evidence items must be documented, accessioned, and stored as soon as possible upon arrival in the Astrea IMF Sample Tracking and Data Sheet.
 - a. Initial information documentation includes:
 - i. Date Received
 - ii. Initials of Receiver
 - iii. Batch Number
 - iv. IMF Sample Name
 - v. Purpose/Description
 - vi. Sample Type
3. Once all items are accessioned and entered in the Spreadsheet, store them in a case box. Case boxes must be labeled with the Batch Number (e.g., 220906).
4. If any items are present that require refrigeration (e.g., DNA extracts, buccal swabs) store these in a labeled box in the FL 4 °C fridge.

Sample storage and labeling

1. DNA extracts are stored in the -20°C freezer in the FL but amplified sequence libraries are stored in the -20°C in the main lab (post-PCR product).
2. DNA extracts and extraction blanks generated from case samples should be clearly labeled. Labels can be manually created or the identifying information can be written directly on the container.
 - a. If created manually the labels should contain at least the following information: *EXTRACT NAME, DATE, RESEARCHER INITIALS, Extract or Extract blank.*
3. DNA extracts should be stored in a single box per batch at -20 °C in the laboratory freezer. The box should be labeled with the following information: *Astrea-IMF, DNA extracts, Batch Number, DATE, RESEARCHER INITIALS.*
4. Sequence libraries should be stored in 0.2mL PCR tubes. The top and side of the tube should be labeled with the library name assigned in the Astrea IMF Sample Tracking and Data Sheet.
5. Evidence items should be sealed as soon as practicable after examination is completed.



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6. In the event an item would be unattended, it should be securely stored in a limited access location or sealed.
7. All items are stored in the notated locations unless in the custody of a scientist while processing. The custody of the scientist will be documented through the initials of the scientist and date of processing on the laboratory processing worksheets.
8. Communication to the client on the items collected, created, and preserved for future testing as well as disposition of all items received will be completed by IMF-SLC staff per IMF-SLC evidence handling and reporting procedures.

Returning case items

1. Upon completing a case, evidence items and work product must be returned to IMF-SLC for sequencing. This includes any biological samples sent to Astrea (DNA extracts, skeletal remains, hair) as well as items generated by Astrea in the process of DNA testing (DNA extracts, DNA libraries).
 - a. Note: this does not include aliquots taken for Quality Control assessment (i.e., TapeStation)
2. If shipping DNA extracts or libraries generated at IMF-ASC, transfer to clearly labeled Eppendorf Lobind 1.5mL or 2 mL tubes. Ensure the tubes are tightly closed and wrapped with parafilm.
3. Place sample tubes in a clearly labeled cardboard box. Photograph the box contents before closing and then close and seal the box with laboratory tape. Save the pictures in the case folder on ERS.
4. Place sample boxes in a Styrofoam cooler box with ice packs. If enclosing any documents in the cooler place these in a plastic bag to avoid condensation.
5. Use the FedEx web portal to create a shipment label. Note the following:
 - a. Enter the shipping address carefully to avoid typos.
 - b. Weight and measure the package
 - c. Select the Priority Overnight option for temperature sensitive packages to arrive the next morning at their destination.
 - d. In the "Your reference" box enter the following: IMF Sample Name (e.g., IMF-YY-####-##-##-X).
 - e. Billing may be covered by the customer, IMF-ASC, or IMF-SLC. Determine the finding source prior to scheduling the delivery.
 - f. Select a Drop-off or pickup option as needed. Note that last cutoff-time for drop-off is 4:30 pm.
 - g. Update the shipping notification so that you can track the package via email.
 - h. Complete the shipment and print the FedEx label. Save a copy of the label as PDF in the case folder on ERS.
 - i. Seal the Styrofoam box with tape and place the label on top.
 - j. Drop-off package or ensure successful pickup.
6. Notify the contact person that you have shipped the package. Provide the FedEx tracking number.
 - a. Notification to IMF-SLC may be accomplished using the group chat functions.
7. Also note the shipment date and tracking number in the Astrea_IMF_Sample Tracking and Data Sheet.

Shipping samples to third parties

1. On occasion it will be necessary to ship samples of various types to third party facilities (e.g. sequencing centers, collaborators) at the request of IMF-SLC. Before doing so, inventory all items and make a note in the Astrea_IMF_Sample Tracking and Data Sheet, recording which items and why they will be leaving IMF-ASC facilities.
2. Confirm the shipping address and contact person who will be receiving your package. Note this information in the Astrea_IMF_Sample Tracking and Data Sheet.



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3. Ship appropriate samples according to Steps 2-7 in the Returning Case Items Section above.

4. References

None

5. Definitions

None