



# **General Shipping Procedures and Guidelines**

**in collaboration with the**

## **Indiana University Biomarker Assay Laboratory**

**Shipment Manual of Procedures**

**Version 08.2024**



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## 1.0 ABBREVIATIONS

IATA	International Air Transport Association
IUBAL	Indiana University Biomarker Assay Laboratory
UPS	United Parcel Service

## 2.0 PURPOSE

The purpose of this manual is to provide the study staff (PIs, study coordinators, and RA's) at the study site with instructions for the submission of biological samples to IUBAL located in Indianapolis at Indiana University.

This manual includes instructions for shipping to IUBAL. This document is intended for all study personnel involved in shipping blood specimens to IUBAL for biomarker analysis.

## 3.0 CONTACT INFORMATION

### 3.1 IUBAL Contacts

**Kelley Faber, MS, CCRC, Sr.  
Project Manager**  
Phone: (317) 274-7360  
Email: [kelfaber@iu.edu](mailto:kelfaber@iu.edu)

**Kristen Russ, PhD, IU BAL  
Director**  
Phone: (317) 278-4707  
Email: [karuss@iu.edu](mailto:karuss@iu.edu)

**General BAL Contact Information**  
Email: [iubal@iu.edu](mailto:iubal@iu.edu)  
Website: [www.ncrad.iu.edu](http://www.ncrad.iu.edu)

**Sample Shipment Mailing Address**  
ATTN: BAL  
Indiana University School of  
Medicine  
351 W. 10<sup>th</sup> St. TK-217  
Indianapolis, IN 46202  
Phone: 1-800-526-2839



### 3.2 Hours of Operation

Indiana University business hours are from 8 AM to 5 PM Eastern Time, Monday through Friday.

Frozen samples must be shipped **Monday – Wednesday only**.

For packing and shipment details of samples, please refer to [Section 4.0](#) of this MOP.

Check the weather report to make sure impending weather events (blizzards, hurricanes, etc.) will not affect the shipping or delivery of the samples.

### 3.3 Holiday Observations

Date	Holiday
January 1	New Year's Day
3 <sup>rd</sup> Monday in January	Martin Luther King, Jr Day
4 <sup>th</sup> Monday in May	Memorial Day
June 19	Juneteenth (observed)
July 4	Independence Day (observed)
1 <sup>st</sup> Monday in September	Labor Day
4 <sup>th</sup> Thursday in November	Thanksgiving
4 <sup>th</sup> Friday in November	Friday after Thanksgiving
December 25	Christmas Day
December 26-31	Winter Break

Please note that between December 24<sup>th</sup> and January 2<sup>nd</sup>, the Indiana University Genetics Biobank will be open Monday through Friday for essential operations **ONLY** and will re-open for normal operations on January 2<sup>nd</sup>. Biological specimens for submission to the IUBAL should **NOT** be collected and shipped to Indiana University after the second week in December. **Please see:** <https://ncrad.iu.edu/contact/holiday-closures> for additional information.

- Please note that courier services may observe a different set of holidays.
- Please be sure to verify shipping dates with your courier prior to any holiday.
- **Weekend/holiday delivery must be arranged in advance with IUBAL staff.**



## 4.0 PACKAGING & SHIPPING INSTRUCTIONS

**ALL** study personnel responsible for shipping should be certified in biospecimen shipping. If you have difficulty finding biospecimen shipping training, please notify the IUBAL.

In addition to tracking and reconciliation of samples, the condition and number of samples received are tracked by each site and IUBAL for each sample type. Investigators, clinical coordinators, and RA's for each project are responsible to ensure the requested amounts of each fluid are collected to the best of their ability and that samples are packed with cold packs to avoid freezing in the shipment process.

### 4.1 Frozen Packaging Instructions

**FROZEN SAMPLES MUST BE SHIPPED MONDAY-WEDNESDAY ONLY!**

The most important issue for shipping is to maintain the temperature of the samples. The frozen samples must never thaw; not even the outside of the tubes should be allowed to defrost. This is best accomplished by making sure the Styrofoam container is filled completely with pelleted dry ice.



**Small Frozen Shipper:**

**\*\*10 lbs of dry ice pellets**

**AND**

- Fits up to 2 x 81-cell cryoboxes

Specimens being shipped to IUBAL should be considered as Category B UN3373 specimens and as such must be triple packaged and compliant with IATA Packing Instructions 650. *See the Latest Edition of the IATA Regulations for complete documentation.*

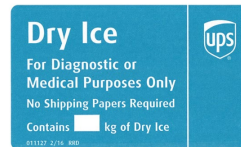
Triple packaging consists of a primary receptacle(s), a secondary packaging, and a rigid outer packaging. The primary receptacles must be packed in secondary



packaging in such a way that, under normal conditions of transport, they cannot break, be punctured, or leak their contents into the secondary packaging. Secondary packaging must be secured in outer packaging with suitable cushioning material. Any leakage of the contents must not compromise the integrity of the cushioning material or of the outer packaging.

### Packaging and Labeling Guidelines

- The primary receptacle (cryovials) must be leak proof and must not contain more than 1L total.
- The secondary packaging (biohazard bag) must be leak proof and if multiple blood tubes are placed in a single secondary packaging, they must be either individually wrapped or separated to prevent direct contact with adjacent blood tubes.
- Absorbent material must be placed between the primary receptacle and the secondary packaging. The absorbent material should be of sufficient quantity in order to absorb the entire contents of the specimens being shipped. Examples of absorbent materials are paper towels, absorbent pads, cotton balls, or cellulose wadding.
- A shipping manifest of specimens being shipped must be included between the secondary and outer packaging.
- The outer shipping container must display the following labels:
  - ✓ Sender's name and address
  - ✓ Recipient's name and address
  - ✓ Responsible Person
  - ✓ The words "Biological Substance, Category B"
  - ✓ UN3373
  - ✓ UPS Dry Ice Label and net weight of pelleted dry ice contained



#### 4.1.1 IUBAL Packaging Instructions – Frozen Shipments

1. If possible, hold packaged samples in a -80°C freezer until the time of UPS pick-up/drop-off. If storage in a -80°C freezer until UPS pick-up is not possible, package samples no more than 4 hours before the expected pick-up time.



2. Notify IUBAL of shipment by emailing [IUBAL@iu.edu](mailto:IUBAL@iu.edu). Attach the following to the email:
  - a. **Completed shipment manifest**
  - b. **If email is unavailable please call IUBAL and do not ship until you've contacted and notified the IUBAL team about the shipment in advance.**
3. Place the cryovial boxes containing frozen samples into a biohazard bag.
4. As the cryovial box is placed in the plastic biohazard bag, do NOT remove the absorbent material found in the bag. Seal according to the instructions on the bag.
5. Place approximately 2-3 inches of pelleted dry ice in the bottom of the Styrofoam shipping container.
6. Place the biohazard bags into the provided Styrofoam-lined shipping container on top of the pelleted dry ice. Please ensure that cryovial boxes are placed so the cryovials are upright in the shipping container. A maximum of 2 cryoboxes may be sent in each shipper.
7. After the samples have been placed into the shipping container, completely fill the inner Styrofoam with pelleted dry ice pellets to ensure the frozen state of the specimens during transit.
8. Replace the lid on the Styrofoam carton. Place the completed shipment manifest in the package on top of the Styrofoam lid and close and seal the outer cardboard shipping carton with packing tape.
9. Complete the UPS Dry Ice Label with the following information:
  - a. Net weight of pelleted dry ice in kg (must match amount on the airbill)
  - b. Do not cover any part of this label with other stickers, including pre-printed address labels.
10. Apply all provided warning labels and UPS return airbill to the outside of package, taking care not to overlap labels. **Complete the required fields on the UPS Dry Ice label or UPS may reject or return your package.**
11. Use UPS tracking to ensure the delivery occurs as scheduled and is received by IUBAL. Please notify IUBAL by email ([IUBAL@iu.edu](mailto:IUBAL@iu.edu)) that



a shipment has been sent and include the UPS tracking number in your email.

## 5.0 APPENDICES

[Appendix A: IUBAL Manifest Template](#)



### Appendix A: IUBAL Manifest Template

Please email the manifest on or prior to the date of shipment. Digital link [here](#).

Box	Position	SiteID	Individual ID	Specimen Barcode	Specimen Type*	Volume in uL	Hemolyzed	Turbid	Gender	Year of Birth	Visit	Collection Container**	Collection Date	Freeze/Thaw Cycle***
1	1													
1	2													
1	3													
1	4													
1	5													
1	6													
1	7													
1	8													
1	9													
1	10													
1	11													
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