

NINDS **BIOSEND**

Emory LBD Study
PDBP Study ID 283

BIOSPECIMEN COLLECTION & PROCESSING

Overview

1. Specimen uniformity and quality
2. Site Equipment
3. Procedures
 - Kit Ordering
 - Sample Labels
 - Sample Collection and Processing
 - Shipping Closures
4. Contact Information

Specimen Uniformity and Quality

GENERAL REMINDERS

Specimen Uniformity and Quality

Most biomarkers are sensitive to *time* and *temperature*

- Standardization of processing across sites is key
- Reference the *BioSEND Specimen Collection, Processing, and Shipment Manual* as needed
- Do not replace or supplement any kit components without first receiving approval from BioSEND/NINDS

Site Equipment

Sites will need to supply the following items:

Phlebotomy

- Gloves
- Alcohol wipes
- Butterfly needles
- Tourniquet
- Gauze pads
- Bandages
- Sharps bin and lid



Site Equipment

Sites will need to supply the following items:

Processing

- Crushed ice
- Microcentrifuge tube rack
- Calibrated pipettes and pipette tips
- Centrifuge capable of maintaining 4°C
- -80°C Freezer
- Dry ice



Collection Schedule – PDBP Study 283



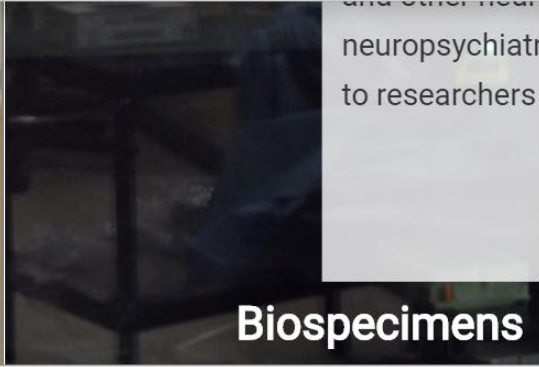
	BL	12M	24M	36M	48M
Buffy coat (2 aliquots)	X	X	X	X	X
Plasma (6 x 1ml)	X	X	X	X	X
Serum (6 x 1ml)	X	X	X	X	X
RNA (2 x 2.5ml)	X	X	X	X	X
Whole Blood (1 x 3ml)	X	X	X	X	X
CSF (10 x 1ml)	X		X		X

Kit Ordering – Biosend.org



NINDS BioSEND Accessing Biospecimens Banking Samples **Active Studies** About BioSEND

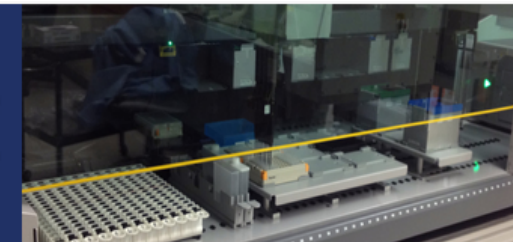
AJPD Study Resources	MBPS Study Resources	SPARX3 Study Resources
CHANGE-HD Study Resources	PBS Study Resources	Udall Study Resources
DLB Study Resources	PHD3 Study Resources	Holiday Closures
DVRP Study Resources	PSP Study Resources	Shipping Information
EpiBioS4Rx Study Resources	SBPD Study Resources	Sample Shipment Form
LBD Study Resources	CRC-SCA Study Resources	
LETBI Study Resources	READISCA Study Resources	

 **About BioSEND**  **Banking Samples**  **Biospecimens**

Kit Ordering – LBD Emory Resource Page

Study Resource page includes MOP, training slides, and links to the online sample form and kit request module

Lewy Body Dementia Active Study Page



Welcome LBD Study staff, coordinators, and PIs. This section encompasses study specific tools and resources for **PDBP Study IDs 229, 231, 232, and 233**. If you have any questions, comments, or new ideas please contact biosend@iu.edu or by phone directly at (317)278-0594.

Specimen Table

Cohort	Population	Genomic DNA	RNA	Plasma	Serum	CSF
LBD	Lewy Body Dementia (LBD) or high likelihood LBD subtype of mild cognitive impairment (MCI)	✓	✓	✓	✓	✓

Study Resources

[Kit Request Module](#)

[Study Specific Sample Notification Forms](#)

[LBD Manual of Procedures](#)

Downloads

[Sample Shipment Form \(pdf\)](#)
[DLBC \(PDBP Study ID 233\) Manual of Procedures](#)
[DLBC \(PDBP Study ID 233\) Training Slides](#)
[LBD Studies 231, 232, and 229 Manual of Procedures](#)
[LBD Studies 231, 232, and 229 Training Slides](#)

Additional Resources

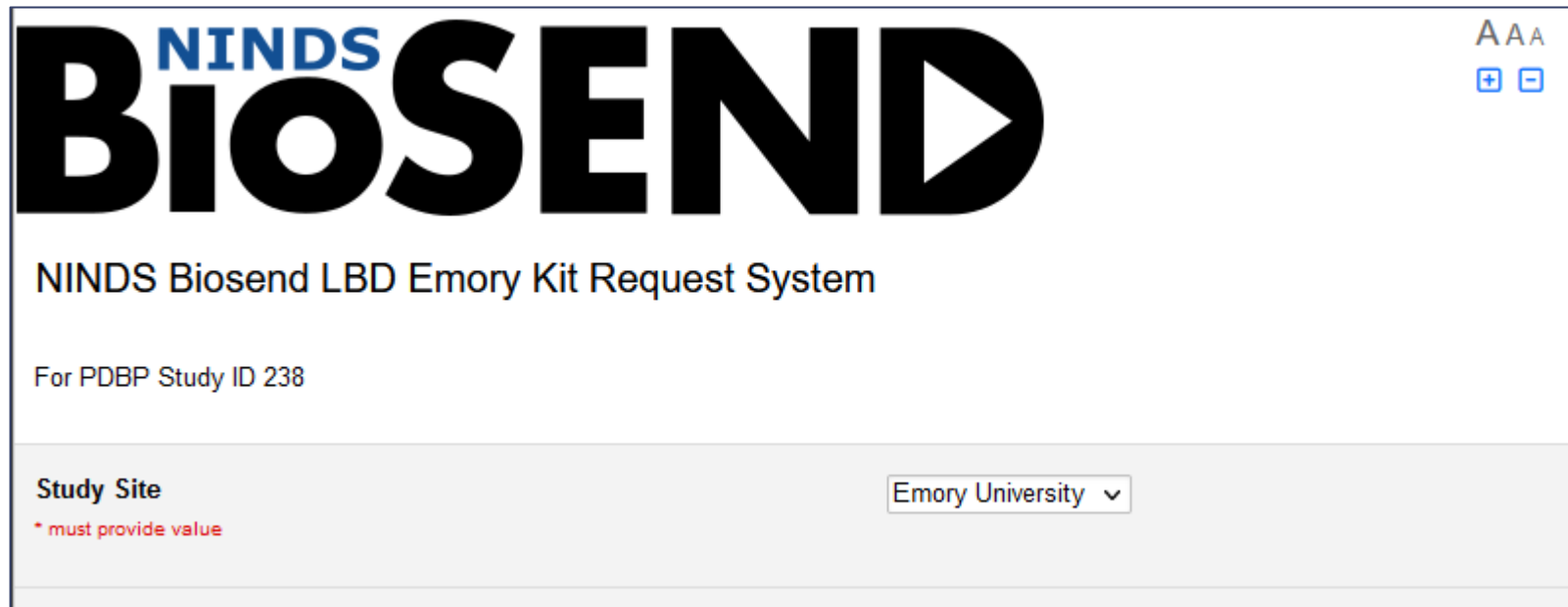
[Online Sample Form](#)

Contact Us

biosend@iu.edu
317-278-0594

BioSEND Kit Request Module

- <http://kits.iu.edu/biosend/EmoryLBD>



The screenshot shows the header of a web application. On the left, the logo features the word "NINDS" in blue above the word "BioSEND" in large, bold black letters. On the right, there are three "A" characters for font size and two square icons for window management. Below the logo, the text "NINDS Biosend LBD Emory Kit Request System" is displayed, followed by "For PDBP Study ID 238". At the bottom, there is a form field labeled "Study Site" with a dropdown menu showing "Emory University" and a red asterisk indicating a required field.

NINDS
BioSEND

AAA
⊕ ⊞

NINDS Biosend LBD Emory Kit Request System

For PDBP Study ID 238

Study Site ▼

* must provide value

Confirm Shipping Info

Confirm site information:

- Study site
- Shipping address
- Contact name
- Email
- Phone Number

Indiana University		
Carolyn Dunifon Indiana University School of Medicine 351 West 10th Street TK-217 Indianapolis, IN 46202 (317) 274-5751 biosend@iu.edu		
Is the contact name above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No	reset
Is the shipping address above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No	reset
Is the e-mail address above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No	reset

Kit Contents and Ordering

Study Site <small>* must provide value</small>	Indiana University
Indiana University School of Medicine Carolyn Dunifon Dept. of Medical & Molecular Genetics 351 West 10th Street, TK-318 Indianapolis, IN 46202-3002 (317) 274-5751 cdunifon@iu.edu	
Is the contact name above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No reset
New Contact Name <small>* must provide value</small>	Claire Wegel
Is the shipping address above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No reset
Is the e-mail address above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No reset
Is the phone number above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No reset

Select your site from the drop-down list

Verify contact information and update if needed

Kit Type

Kit Type **Please allow two weeks for shipment** <i>* must provide value</i>	<input type="checkbox"/> Baseline/Annual Visit Kit <input type="checkbox"/> CSF Collection Kit <input type="checkbox"/> Extra Supplies
	<small>Please specify in comments if you need kits before the standard two week shipment time.</small>

Multiple kit types available

Baseline or Annual Kits

- Contains all specimen labels, blood collection, and shipping supplies
- Kits will have a unique “Kit Number” on labels, rather than a subject ID and time point. This allows kits to be used for any subject or time point.

Kit Type **Please allow two weeks for shipment** <small>* must provide value</small>	<input checked="" type="checkbox"/> Baseline/Annual Visit Kit <input type="checkbox"/> CSF Collection Kit <input type="checkbox"/> Extra Supplies <small>Please specify in comments if you need kits before the standard two week shipment time.</small>
Baseline/Annual Visit Kit Quantity <small>* must provide value</small>	<input type="text" value="3"/>
Comments	<div style="border: 1px solid #ccc; height: 100px; width: 100%;"></div> <p style="text-align: right;">Expand</p>
Baseline/Annual Visit Collection Kit 15 - Siliconized cryogenic vial, 2ml 2 - Serum (glass) tube, 10ml 2 - EDTA (glass) tube, 10ml 1 - EDTA (plastic) tube, 3ml 2 - PAXGene® tube, 2.5ml 7 - Bubble-tube sleeve 2 - Disposable pipet, 3ml 1 - Cryobox, 25 cell 2 - Biohazard bag w/ absorbent sheet 1 - Fragile label 1 - UN3373 label 1 - Dry ice label 1 - Airway bill envelope 1 - Frozen shipper 1 - Label set (kit & specimen labels)	

Important Note: Kit Numbers

- Kit number system allows you to use a visit kit for any study visit
- Kit numbers are unique to a specific kit and will not be used again. That is, a single subject will have a different kit number for each time point
- When sites ship samples to BioSEND, they indicate the subject ID, visit, and kit number on the sample shipping form. BioSEND will keep this link in our database
- Sites are encouraged to maintain their own log of which kit numbers were assigned to which visit

CSF Kits

- CSF collection kits are ordered independently of BL/Annual kits
- CSF labels will be included with all BL/Annual kits, so that CSF kits may be paired with any visit/ID

Kit Type **Please allow two weeks for shipment** <small>* must provide value</small>	<input type="checkbox"/> Baseline or Annual Visit Kit <input type="checkbox"/> 6-Month Visit Kit <input checked="" type="checkbox"/> CSF Kit <input type="checkbox"/> Supplemental Kit <input type="checkbox"/> Extra Supplies <small>Please specify in comments if you need kits before the standard two week shipment time.</small>
CSF Sprotte® Needle Gauge <small>* must provide value</small>	<input checked="" type="radio"/> 22 <input type="radio"/> 24 reset
CSF Visit Kit Quantity <small>* must provide value</small>	<input type="text" value="2"/>

Extra Supplies

Allows you to choose specific supplies and particular quantities

Kit Type **Please allow two weeks for shipment** <small>* must provide value</small>	<input type="checkbox"/> Baseline or Annual Visit Kit <input type="checkbox"/> CSF Kit <input type="checkbox"/> Supplemental Kit <input checked="" type="checkbox"/> Extra Supplies
<small>Please specify in comments if you need kits before the standard two week shipment time.</small>	
Individual Tube Bubble Pouch	<input type="radio"/> 2 <input type="radio"/> 4 reset
25-Slot Cryobox	<input type="radio"/> 2 <input type="radio"/> 4 reset
Siliconized Cryoial (2 ml)	<input checked="" type="radio"/> 10 <input type="radio"/> 20 reset
Lumbar Puncture Trays with Lidocaine, 22g	<input type="radio"/> 2 <input type="radio"/> 4 reset
Airway bill envelope	<input type="radio"/> 2 <input type="radio"/> 4 <small>Plastic envelope to affix air waybill to package</small> reset
Lumbar Puncture Trays with Lidocaine, 24g	<input type="radio"/> 2 <input type="radio"/> 4 reset
Medication Transfer Filter Straws (for LP)	<input checked="" type="radio"/> 2 <input type="radio"/> 4 reset
15ml Conical Tube, individually wrapped	<input type="radio"/> 2 <input type="radio"/> 4 reset

Submit Request

- Click “Submit” to send order to BioSEND; staff will confirm receipt of your order
- Please allow two week turn-around time for kit shipments
- If urgent request needed, please note date needed by in comments and email BioSEND

NINDS BioSEND AAA

NINDS Biosend LBD Kit Request System

Study Site * must provide value

University of Miami - Galvin, James, MD, MPH

Site Contact
Shipping Address

Is the contact name above correct? Yes No * must provide value [reset](#)

Is the shipping address above correct? Yes No * must provide value [reset](#)

Is the e-mail address above correct? Yes No * must provide value [reset](#)

Is the phone number above correct? Yes No * must provide value [reset](#)

Kit Type **Please allow two weeks for shipment** * must provide value

Baseline or Annual Visit Kit
 CSF Kit
 Supplemental Kit
 Extra Supplies

Please specify in comments if you need kits before the standard two week shipment time.

CSF Sprotte® Needle Gauge 22 24 * must provide value [reset](#)

CSF Visit Kit Quantity * must provide value

Comments [Expand](#)

CSF Collection Kit Contents:
11 - Siliconized cryovial (2ml)
2 - 15ml conical tubes- (individually wrapped)
2 - 50ml conical tubes- (individually wrapped)
1 - Medication Transfer Filter Straw
1 - LP tray with 22 gauge Sprotte® needle

Submit

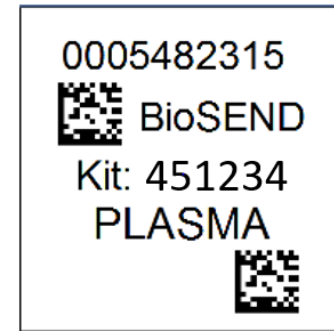
Sample Labeling

Labels are provided by Indiana University

- Please check that all samples are properly labeled with correct specimen type and visit



Kit Labels

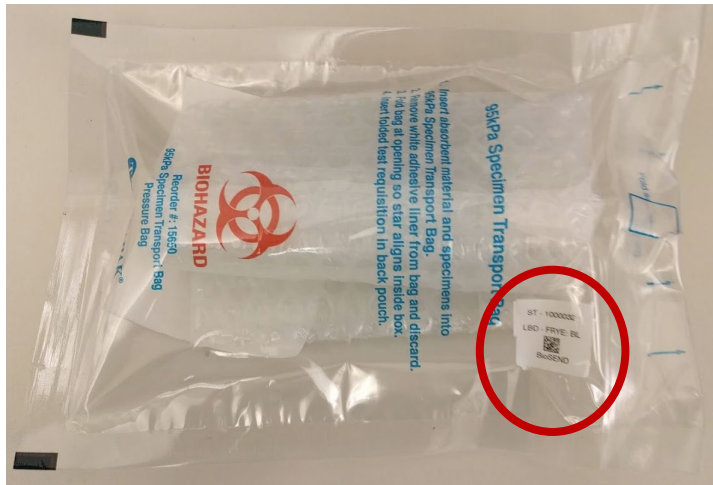


Specimen Labels

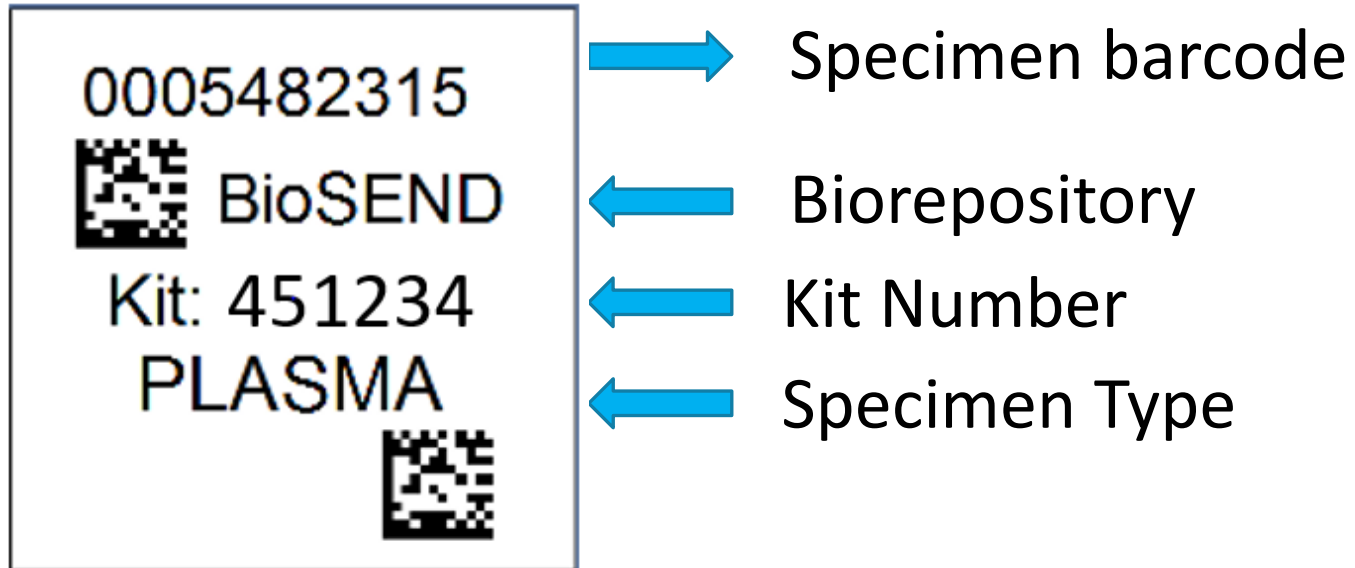
Kit Labels

Kit labels are placed:

- On the plastic biohazard bags
- On the lid of frozen shippers



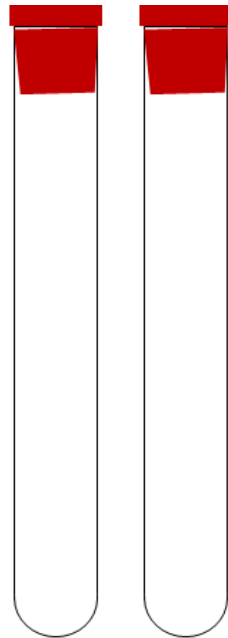
Specimen Label



Sample Collection and Processing

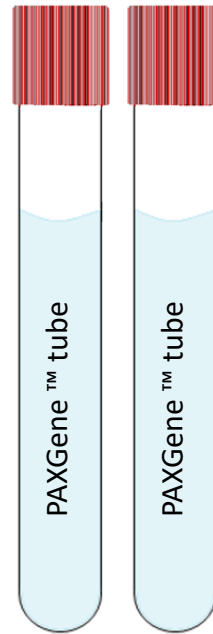
Blood Tube Draw Order

2 x 10ml Serum Tubes



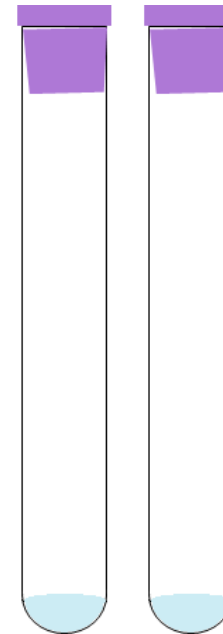
1

2 x 2,5ml PAXGene® Tubes



2

2 x 10ml EDTA Tubes



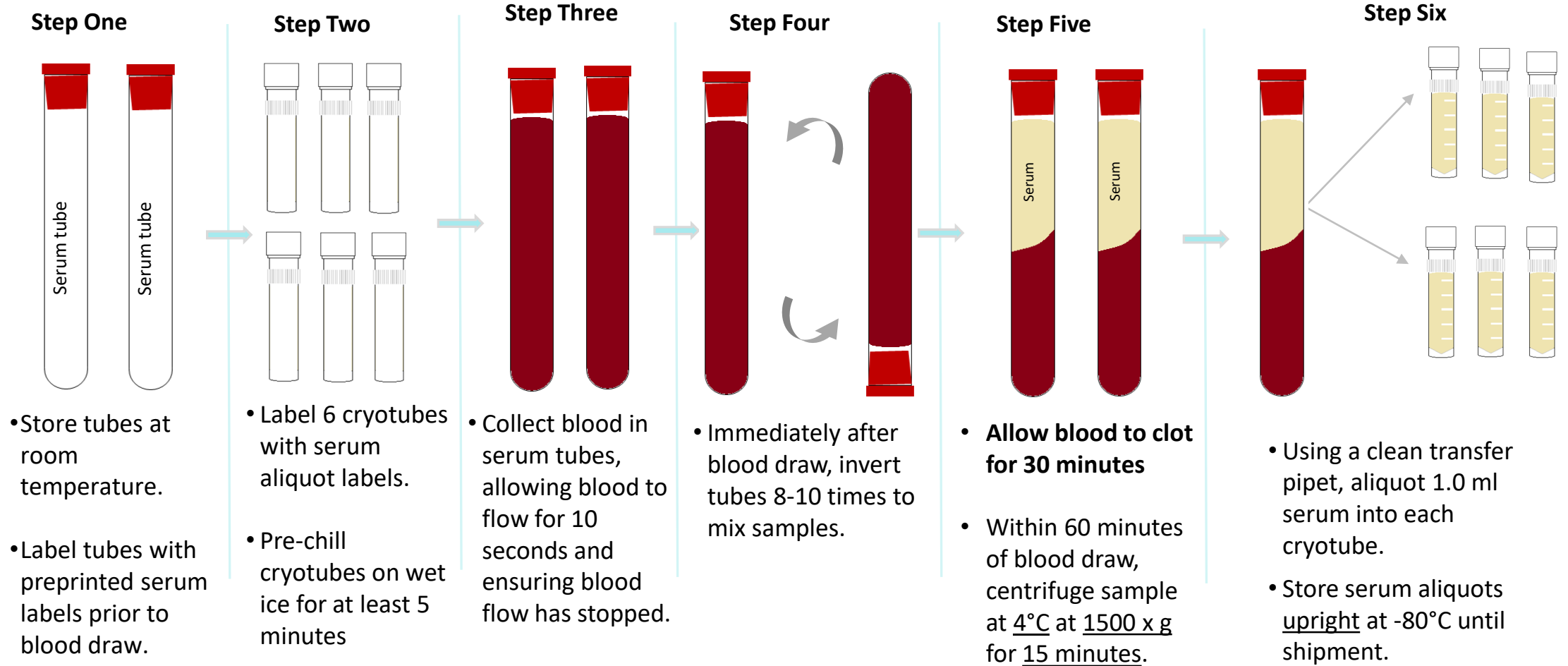
3

1 x 3ml EDTA Tube

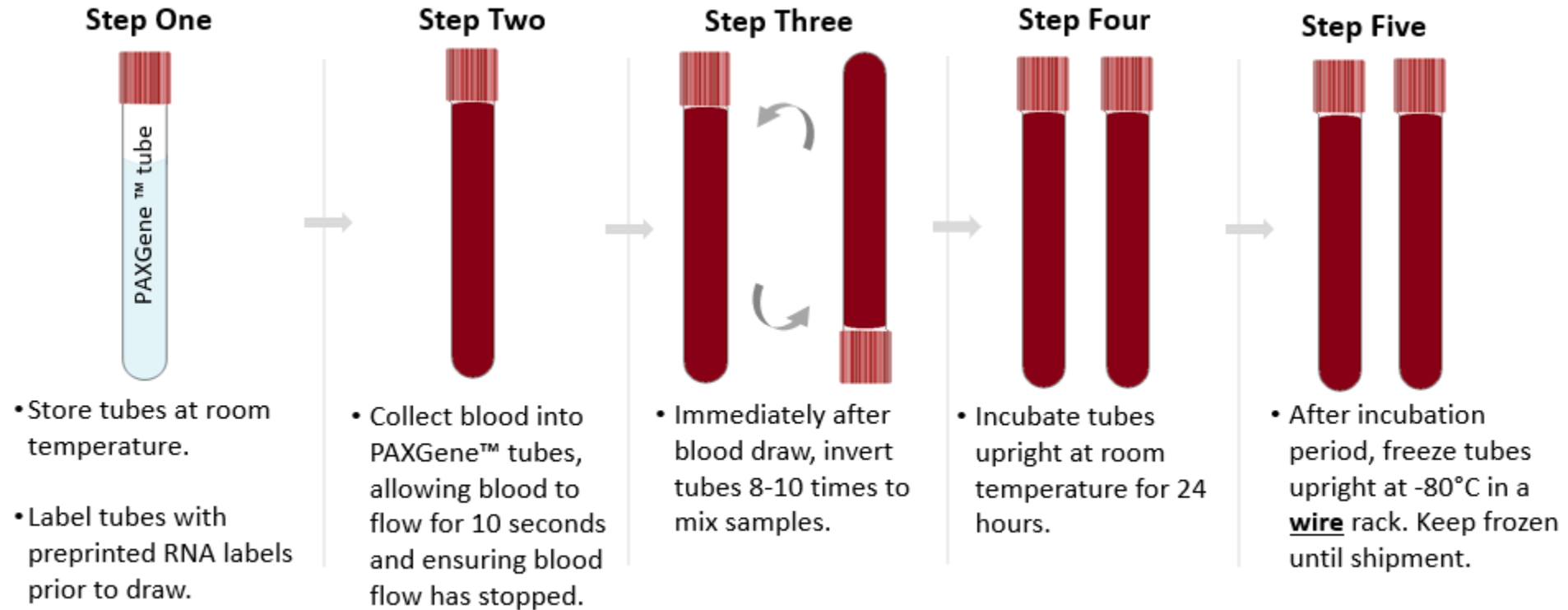


4

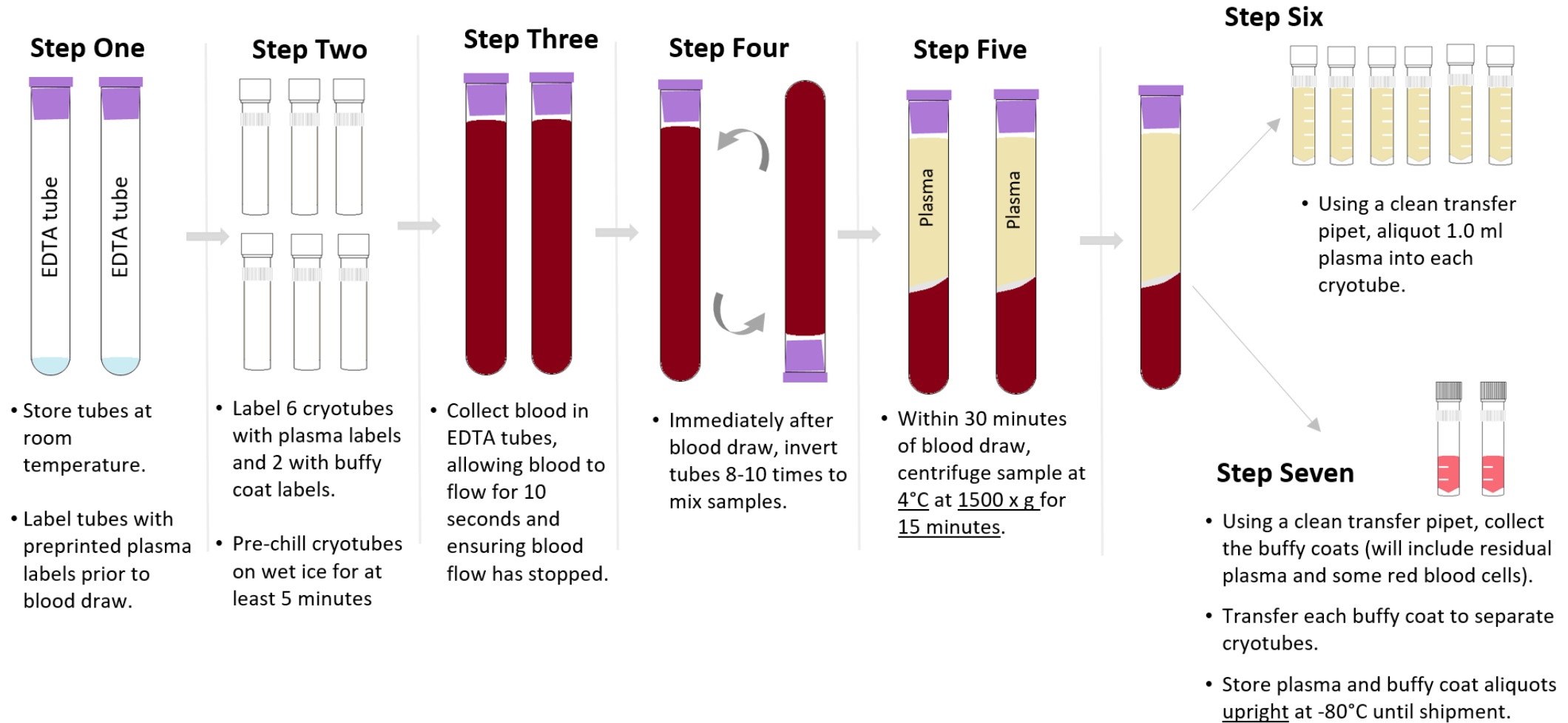
Sample Collection and Processing: Serum



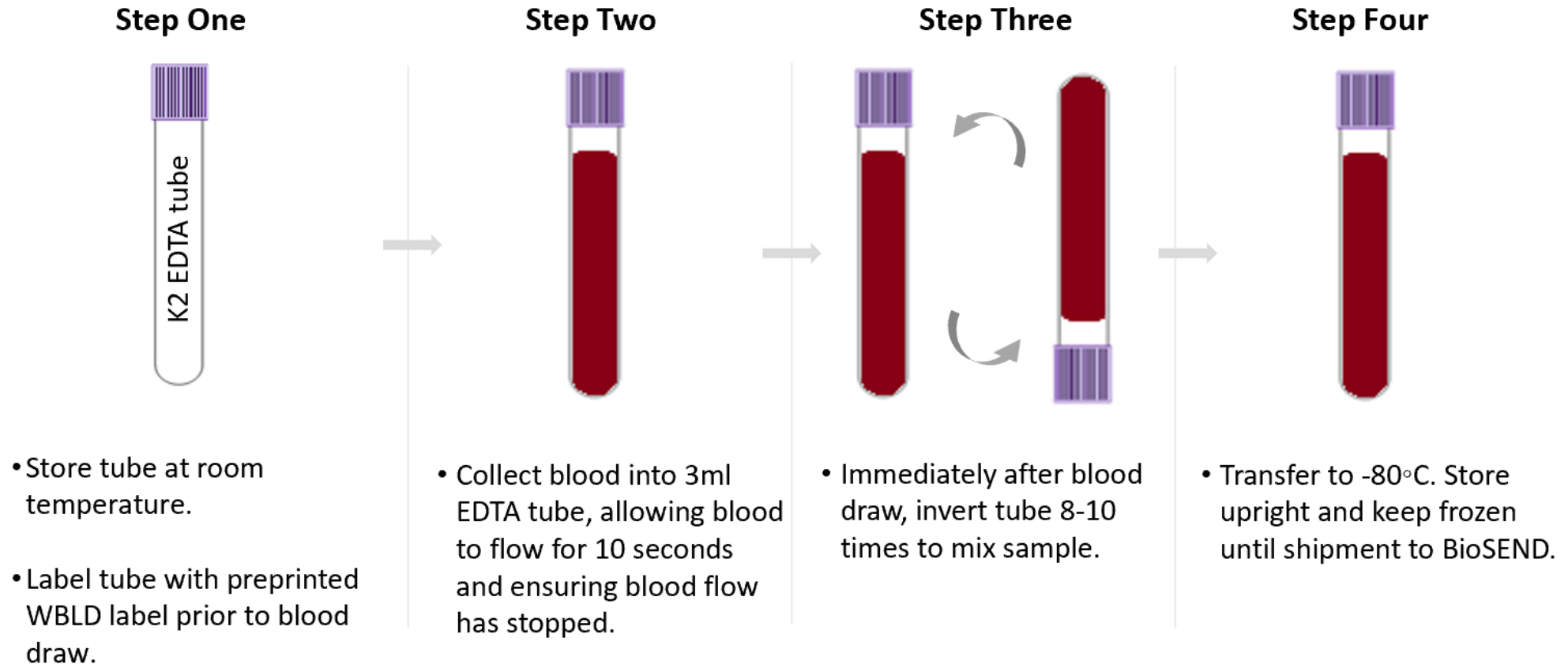
Sample Collection and Processing: RNA



Sample Collection and Processing: Plasma & Buffy Coat



Sample Collection and Processing: Whole Blood

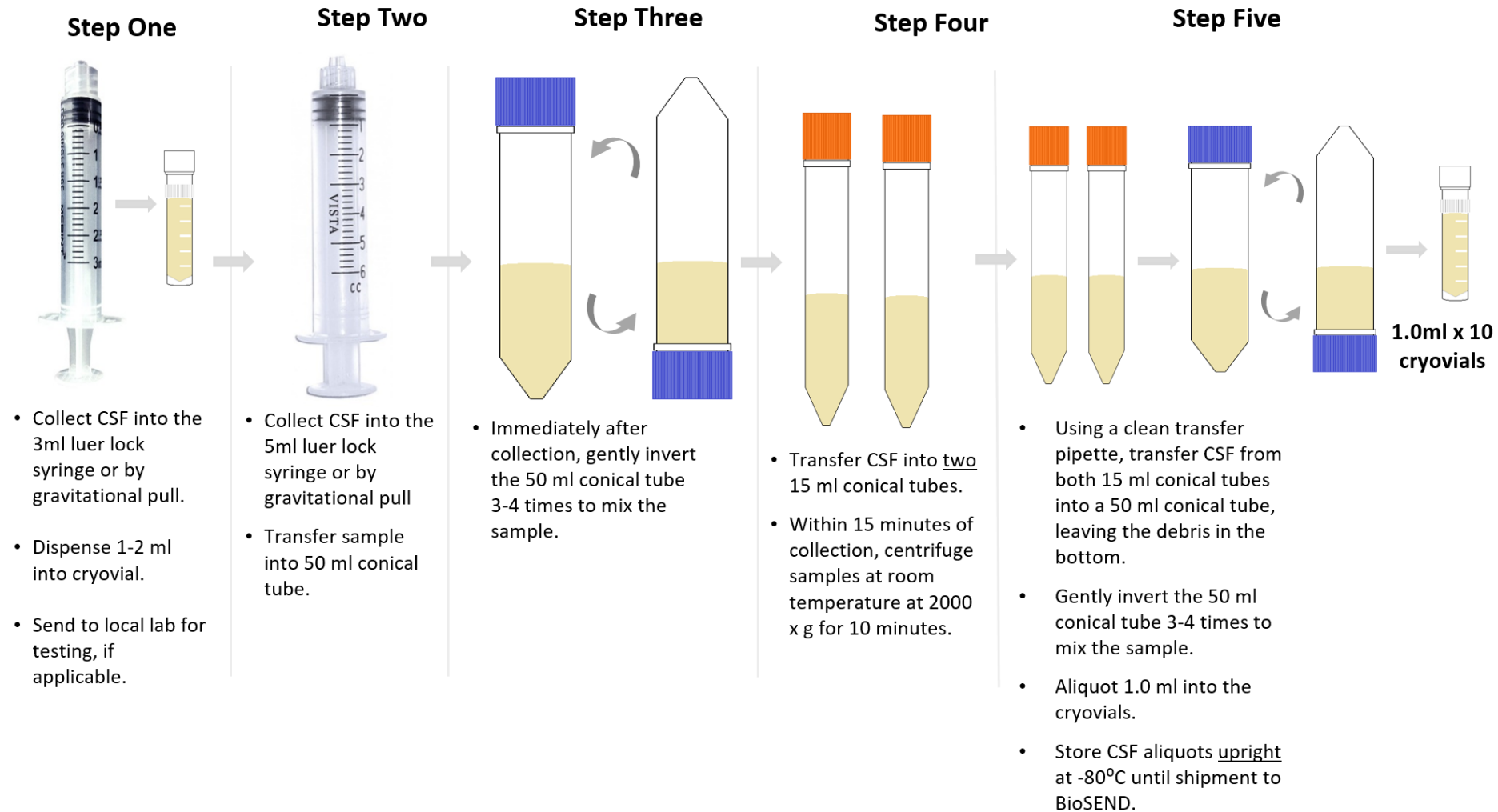


Blood Collection Troubleshooting

Most common issues with draw:

- Store collection tubes at room temperature
- Check expiration dates and keep extra tubes on hand
- Avoid vigorous mixing of collected sample
- Do not leave tubes uncentrifuged for longer than indicated time

Sample Collection and Processing: CSF



Shipping Samples: Frozen

Packing and Shipping Frozen Samples

- All other samples ship frozen
- Ship frozen samples on dry ice
- Frozen samples should be shipped **only** Monday through Wednesday
- Always fill carton to **top** with dry ice
- Do not pack shipment until the day of pickup



Shipping Samples: Frozen

Packing and Shipping Frozen Samples

- Shippers use approx. 10lbs of dry ice
- Place layer of dry ice in between cryoboxes



Shipping Frozen Samples

Hold packaged samples in a -80°C freezer until pickup.

Samples should be received at BioSEND within 2 weeks of collection.



Class 9 Dry Ice Label should not be covered with other stickers and must be completed, or courier will reject/return your package!

Shipping Samples

Packing and Shipping Frozen Samples

Shipper's Declaration not Required.

Dry Ice amount must be in kilograms.

Note: 2 lbs. = 1 kg.

Airwaybills / airmails must have the following:
1. Dry Ice; 9; UN 1845
2. $\frac{\text{Number}}{\text{(Number pkgs)}} \times \frac{\text{wt}}{\text{(wt)}} \text{ Kg}$

Net weight of dry ice in kg

Dry Ice kg.

Your name & address

Shipper's Name and Address

UN 1845

Consignee Name and Address

IU information and address

9

06426 1/01 RRD

The form is a diamond-shaped label with a black and white striped pattern. It contains instructions for shipping dry ice, including a declaration and a formula for calculating weight. The label is annotated with red boxes and arrows pointing to specific fields: 'Net weight of dry ice in kg' points to the 'Dry Ice' field; 'Your name & address' points to the 'Shipper's Name and Address' field; and 'IU information and address' points to the 'Consignee Name and Address' field. The number '9' is prominently displayed in the center, and 'UN 1845' is on the right side.

Shipping Samples

UPS resources available on BioSEND website

The screenshot shows the BioSEND website navigation menu. The logo is 'NINDS BioSEND'. The main navigation items are 'Accessing Biospecimens', 'Banking Samples', 'Active Studies', and 'About BioSEND'. A yellow arrow points from 'Banking Samples' to 'Active Studies'. Below 'Active Studies' is a dropdown menu with the following items: 'AJPD Study Resources', 'CHANGE-HD Study Resources', 'DLB Study Resources', 'DVRP Study Resources', 'EpiBioS4Rx Study Resources', 'LBD Study Resources', 'LETBI Study Resources', 'MBPS Study Resources', 'PBS Study Resources', 'PHD3 Study Resources', 'PSP Study Resources', 'SBPD Study Resources', 'CRC-SCA Study Resources', 'READISCA Study Resources', 'SPARX3 Study Resources', 'Udall Study Resources', 'Holiday Closures', 'Shipping Information', 'Sample Shipment Form', and 'Withdrawn Subject Notification'. A yellow arrow points to 'Shipping Information', which is highlighted in grey. Below the menu are three small images: a building with green trees, a close-up of a metal container, and a dark interior space.

NINDS BioSEND

Accessing Biospecimens Banking Samples → Active Studies About BioSEND

- AJPD Study Resources
- CHANGE-HD Study Resources
- DLB Study Resources
- DVRP Study Resources
- EpiBioS4Rx Study Resources
- LBD Study Resources
- LETBI Study Resources
- MBPS Study Resources
- PBS Study Resources
- PHD3 Study Resources
- PSP Study Resources
- SBPD Study Resources
- CRC-SCA Study Resources
- READISCA Study Resources
- SPARX3 Study Resources
- Udall Study Resources
- Holiday Closures
- Shipping Information**
- Sample Shipment Form
- Withdrawn Subject Notification

Shipping Information Page

Links on this page to:

1. Generate airwaybills & schedule pickups
2. View printed guide on how to use ShipExec™
3. Request user account and update site address in system
4. View video tutorial for using UPS ShipExec™

UPS Shipping Resources

1

To generate air waybills and schedule UPS pickups for shipments to BioSEND, please visit the UPS ShipExec™ Thin Client [website](#).

2

For instructions on how to use the UPS ShipExec™ Thin Client website, please refer to the [BioSEND UPS ShipExec™ Thin Client Guide](#)

3

To request a new user account for UPS ShipExec™ Thin Client or to request an update to your site's address in the system, please [use this form](#) to submit your request.

Navigating UPS ShipExec™

4



Shipping Samples – UPS ShipExec™

If you will be assisting in shipping samples, please request a user account and familiarize yourself with the system well in advance of your first sample shipment

Shipping Samples: Frozen

Please notify BioSEND ahead of shipment

- Please complete the Sample Collection and Processing Form in REDCap ahead of shipment (can be completed day of shipment).
 - A completed copy of this form should be included in the sample shipper
- If you are having trouble with REDCap, please notify BioSEND directly of shipment at biosend@iu.edu

Sample Collection and Processing Form

Direct link:

<http://kits.iu.edu/biosend/EmoryLBDSampleForm>

First page captures basic subject and visit information

NINDS BIOSEND

Returning?

AAA
+ -

Please complete the Specimen Collection and Processing Form, below.

Page 1 of 3

LBD Emory Study (PDBP Study ID 238)

Study Site

Email address of staff member completing this form

Note: A copy of the completed sample form and the shipping manifest will be sent to this address.

GUID

Sex (used for DNA quality control)

Visit

ST Number
eg, ST-1001234

Next Page >>

Save & Return Later

Sample Collection and Processing Form

Second page captures processing information

Blood Collection and Processing

Date of venipuncture blood collection



Today

M-D-Y

Time of venipuncture blood collection



Now

H:M

Use 24 Hour clock

SERUM (red-top tubes, 10 mL)

Was blood collected and processed for SERUM?

Yes

No

reset

Time of SERUM tube centrifugation



Now

H:M

Use 24 Hour clock

Duration of SERUM tube centrifugation

15

minutes

Rate of SERUM tube centrifugation

1500

x g

Temperature of SERUM tube centrifugation

4

degrees Celsius

Total volume of SERUM collected

mL

Number of SERUM aliquots created

Each aliquot should be 1 mL

Time SERUM aliquots were placed in freezer



Now

H:M

Use 24 Hour clock

Sample Collection and Processing Form

PDF form of responses will be emailed to you. Print a copy of the Frozen Shipping Manifest and include with shipment.

LBD Emory Frozen Shipping Manifest

Page 6

Please verify/update the information below. When you click the "Submit" button below, a PDF copy of the Frozen Shipping Manifest will be emailed to you for Subject [subj_id].

Please print a copy of that document and include it in the shipping container.

Study Site: Emory University

GUID: _____

Visit: BL
 12M
 24M
 36M
 48M

ST Number: _____

Date of blood collection: _____

Date of CSF collection: _____

SERUM

Number of SERUM aliquots shipped: _____

RNA

Number of PAXGene™ tubes shipped: _____

PLASMA EDTA

Number of PLASMA EDTA aliquots shipped: _____

Number of BUFFY COAT aliquots shipped: _____

Shipping Samples: Closures

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

*Please also consider weather when shipping. UPS will post service updates on their webpage. Please reach out to BioSEND if you are unsure if it is safe to ship.

Contact Info

Indiana University

biosend@iu.edu

317-278-0594

<https://biosend.org>