



Discovery of Multimodal Biomarkers for Parkinsonian Syndromes Study (MBPS) Study Training Webinar

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:

- Gloves
- Alcohol wipes
- Butterfly needles
- Tourniquet
- Gauze pads
- Bandages
- Microcentrifuge tube rack
- Sharps bin and lid
- Crushed ice
- Pipettes and pipette tips
- Centrifuge capable of maintaining 4°C
- -80°C Freezer
- Dry ice

Biospecimen Collection Protocol

	BL	12M	18M
Whole Blood (2 x 3ml)	X	X	X
Buffy coat (2 aliquots)	X	X	X
Plasma (6 x 1ml)	X	X	X
Serum (6 x 1ml)	X	X	X
RNA (2 x 2.5ml)	X	X	X
CSF (10 x 1ml)	X	X	X

Kit Ordering – Biosend.org

NINDS
BioSEND


Accessing
Biospecimens

Banking
Samples


Active Studies


About
BioSEND

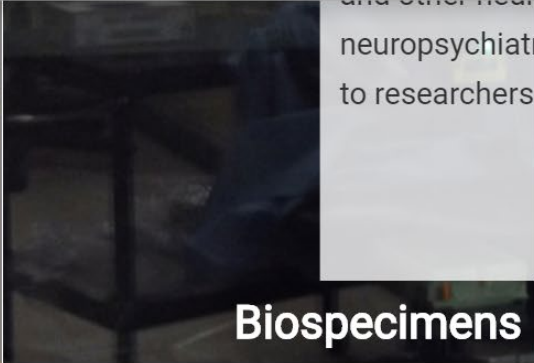
AJPD Study Resources
CHANGE-HD Study Resources
DLB Study Resources
DVRP Study Resources
EpiBioS4Rx Study Resources
LBD Study Resources
LETBI Study Resources


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

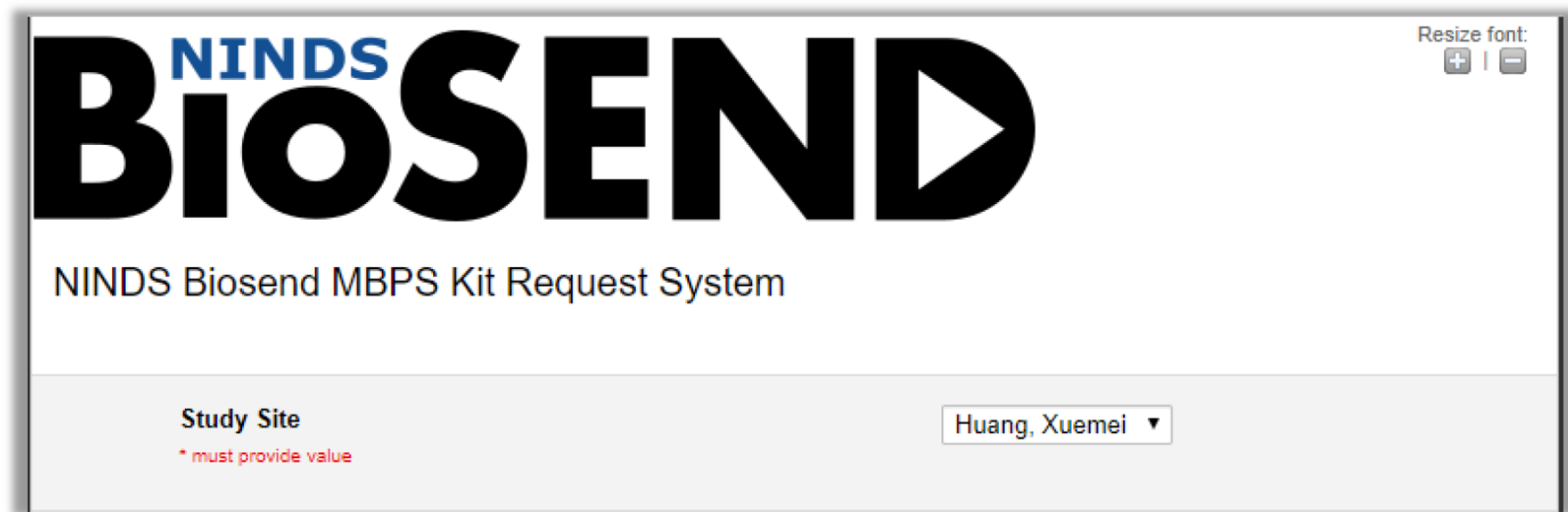

About BioSEND


Banking Samples


Biospecimens

BioSEND Kit Request Module

- <http://kits.iu.edu/biosend/mbps>
- **Choose your site from the drop-down list.**



The screenshot shows the NINDS BioSEND MBPS Kit Request System interface. At the top, the logo "NINDS BioSEND" is displayed in large, bold letters, with "NINDS" in blue and "BioSEND" in black. Below the logo, the text "NINDS Biosend MBPS Kit Request System" is visible. In the top right corner, there is a "Resize font:" label with plus and minus icons. At the bottom, there is a "Study Site" label with a red asterisk and the text "* must provide value". To the right of this label is a drop-down menu showing "Huang, Xuemei" with a downward arrow.

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?

* must provide value

☐ Yes

☐ No

[reset](#)

Is the shipping address above correct?

* must provide value

☐ Yes

☐ No

[reset](#)

Is the e-mail address above correct?

* must provide value

☐ Yes

☐ No

[reset](#)

Update Information

Provide corrected/updated information, as needed

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>	<input type="text"/>	
Is the shipping address above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No	reset
New Shipping Address <small>* must provide value</small>	<div><input type="text"/></div> <div>Expand</div>	
Is the e-mail address above correct? <small>* must provide value</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No	reset
New e-mail Address <small>* must provide value</small>	<input type="text"/>	

Kit Type

Kit Type

****Please allow two weeks for shipment****

* must provide value

- ☐ Baseline Visit Kit
- ☐ 12M Visit Kit
- ☐ 18M Visit Kit
- ☐ CSF Collection Kit
- ☐ Supplemental Kit
- ☐ Extra Supplies

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

Multiple kit types available

Baseline Kits



- BioSEND creates ST numbers for baseline kits
- ST#s serve as the biorepository subject identifier
- Enter kit quantity

Kit Type **Please allow two weeks for shipment** <small>* must provide value</small>	<input checked="" type="checkbox"/> Baseline Visit Kit <input type="checkbox"/> 12M Visit Kit <input type="checkbox"/> 18M Visit Kit <input type="checkbox"/> CSF Collection 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>
Baseline Visit Kit Quantity <small>* must provide value</small>	<input type="text" value="1"/>

Important Note: ST-Numbers

Please note: the ST-Number provided in a BL kit can be used for any subject's BL visit. **This ST number is a subject identifier** and will need to stay linked to the patient through the entirety of the study.

Annual Visits

Baseline or Annual Visit Kit Quantity	<input type="text" value="2"/>
<small>* must provide value</small>	<small>If you need more than 10 kits or labels, please use the file upload option or submit multiple requests.</small>
<p>If you going to request more than 10 kits/labels or prefer to upload a file with the Biorepository ID and Visit, you may download this template file and fill in the relevant information.</p> <p>Attachment:  BioSEND Kit IDs Template.xlsx (0.01 MB)</p>	
<p>If you are using the provided template to upload Biorepository IDs and Visits, please upload your template file here.</p> <p> Upload document</p>	
1st Kit Visit ID (only if not using file upload option)	<input type="text" value="ST-00012345"/> <small>e.g. ST-00012345</small>
1st Kit Visit Month	<input type="text" value="12 Month"/>
2nd Kit Visit ID (only if not using file upload option)	<input type="text" value="ST-0012346"/> <small>e.g. ST-00012345</small>
2nd Kit Visit Month	<input type="text" value="36 Month"/>

Please provide ST-Number and time point. We are unable to complete your request without this information

CSF Kits

- CSF collection kits are ordered independently of BL and annual kits
- CSF labels will be included with all BL and 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 Visit Kit <input type="checkbox"/> 12M Visit Kit <input type="checkbox"/> 18M Visit Kit <input checked="" type="checkbox"/> CSF Collection 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 type="radio"/> 22 <input checked="" type="radio"/> 24 <small>reset</small>
CSF Kit Quantity <small>* must provide value</small>	<input type="text" value="2"/>

Supplemental Kit

Kit Type

****Please allow two weeks for shipment****

* must provide value

- ☐ Baseline Visit Kit
- ☐ 12M Visit Kit
- ☐ 18M Visit Kit
- ☐ CSF Collection Kit
- ☒ Supplemental Kit
- ☐ Extra Supplies

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

Supplemental Kit Quantity

* must provide value

Contains a variety of
extra kit components

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 Visit Kit <input type="checkbox"/> 12M Visit Kit <input type="checkbox"/> 18M Visit Kit <input type="checkbox"/> CSF Collection 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 Sterile Cryogenic Vial (2 ml)	<input type="radio"/> 10 <input type="radio"/> 20	reset
Air waybill 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
Lumbar Puncture Trays with Lidocaine, 22g	<input type="radio"/> 2 <input type="radio"/> 4	reset
Sprotte® spinal needle and introducer, 22g (for LP)	<input type="radio"/> 2 <input type="radio"/> 4	reset

Multiple Orders

Kit Type **Please allow two weeks for shipment** <small>* must provide value</small>	<div><input checked="" type="checkbox"/> Baseline Visit Kit</div> <div><input type="checkbox"/> 12M Visit Kit</div> <div><input type="checkbox"/> 18M Visit Kit</div> <div><input checked="" type="checkbox"/> CSF Collection Kit</div> <div><input type="checkbox"/> Supplemental Kit</div> <div><input type="checkbox"/> Extra Supplies</div> <div><small>Please specify in comments if you need kits before the standard two week shipment time.</small></div>
CSF Sprotte® Needle Gauge <small>* must provide value</small>	<div><input type="radio"/> 22</div> <div><input checked="" type="radio"/> 24</div> <div>reset</div>
Baseline Visit Kit Quantity <small>* must provide value</small>	<div>1</div>
CSF Kit Quantity <small>* must provide value</small>	<div>2</div>

You can order more than one type of kit in a single kit request

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
Ninds Biosend LDB Kit Request System

Study Site: Scherzer, Clemens
* must provide value

Harvard Medical School - Scherzer, Clemens
Kara Page
65 Landsdowne St
Rm #327
Cambridge, MA 02139
(617) 768-8677
kjpage@partners.org
ksburke@partners.org

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

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

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

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

☐ Baseline or Annual Visit Kit
☐ 6-Month Visit Kit
☐ Supplemental Kit
☐ Extra Supplies

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

Comments

[Expand](#)

Submit

Sample Labelling

Labels are provided by Indiana University

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

ST-10001234:
MBPS:BL



BioSend

Case Labels

0001234567



BioSEND

ST-10001234

BL

PLASMA

Specimen Labels

Case Label

ST-10001234:
MBPS:BL



BioSend



Subject Number



Study – PI & Visit

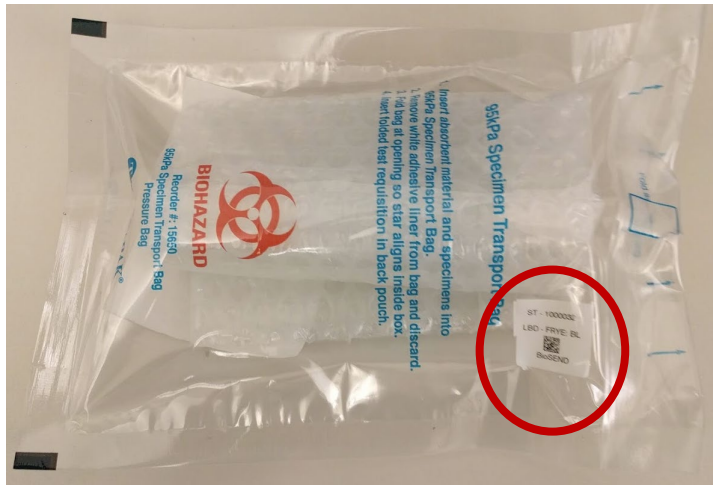


Biorepository Name

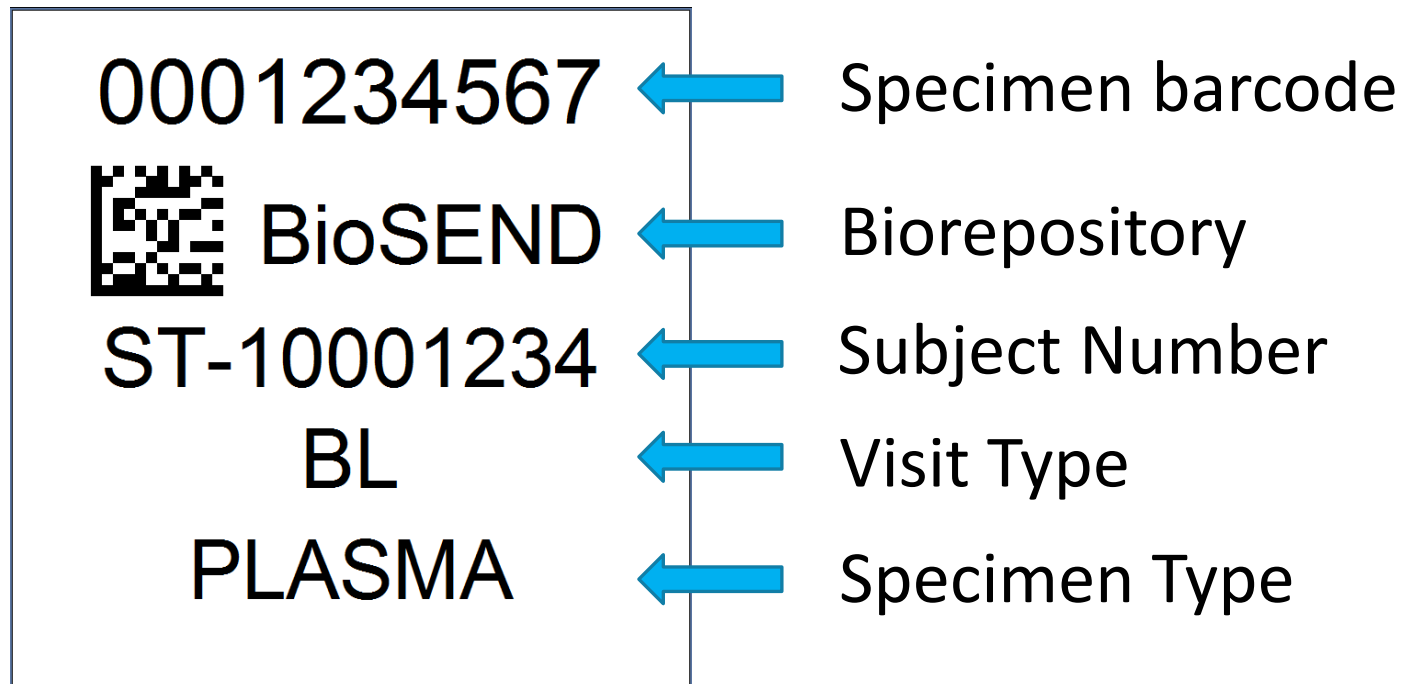
Case Labels

Case labels are placed:

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

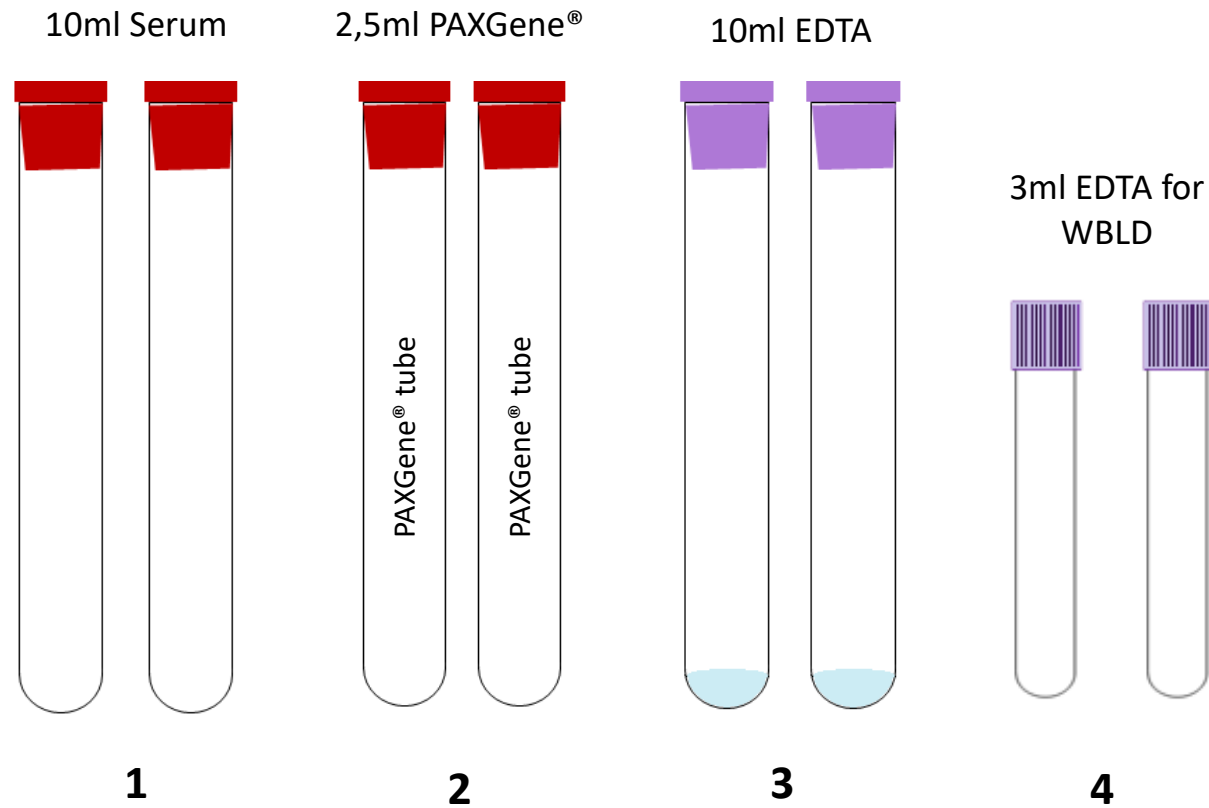


Specimen Label

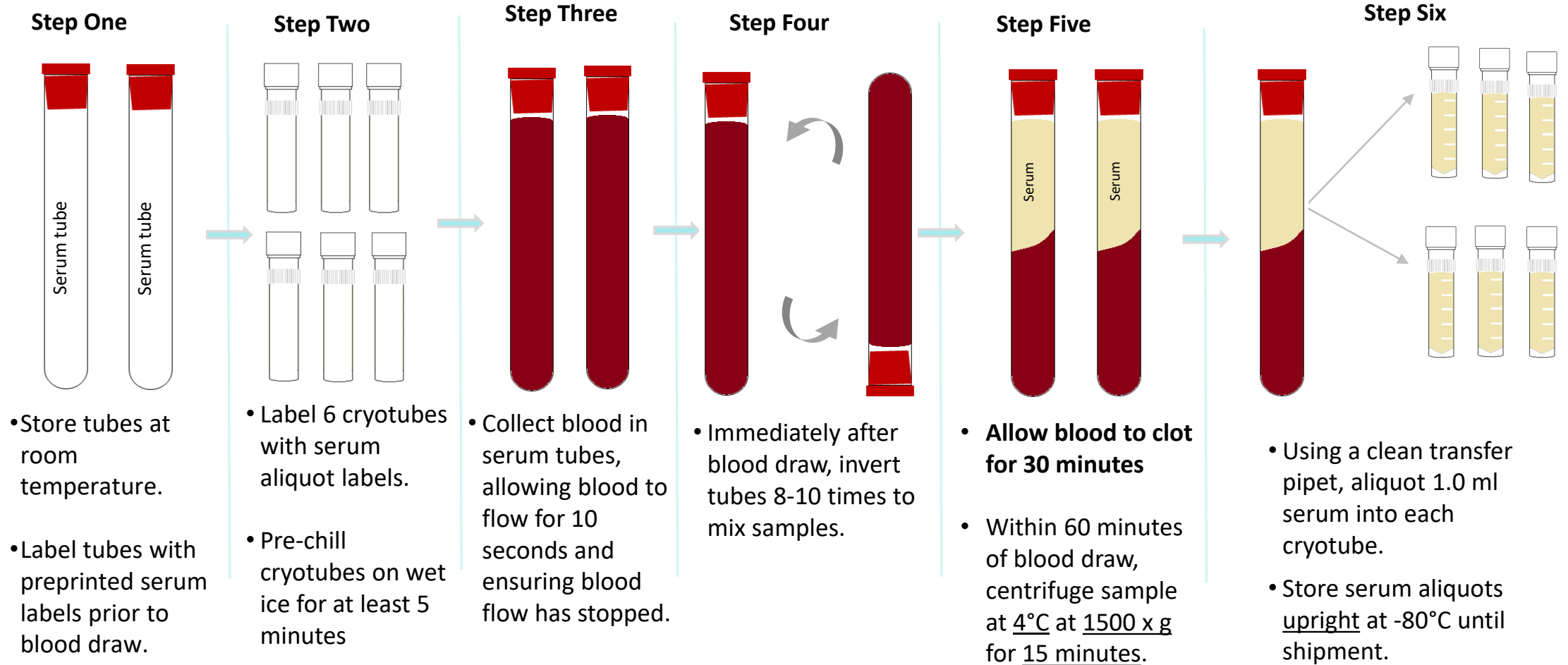


Sample Collection and Processing

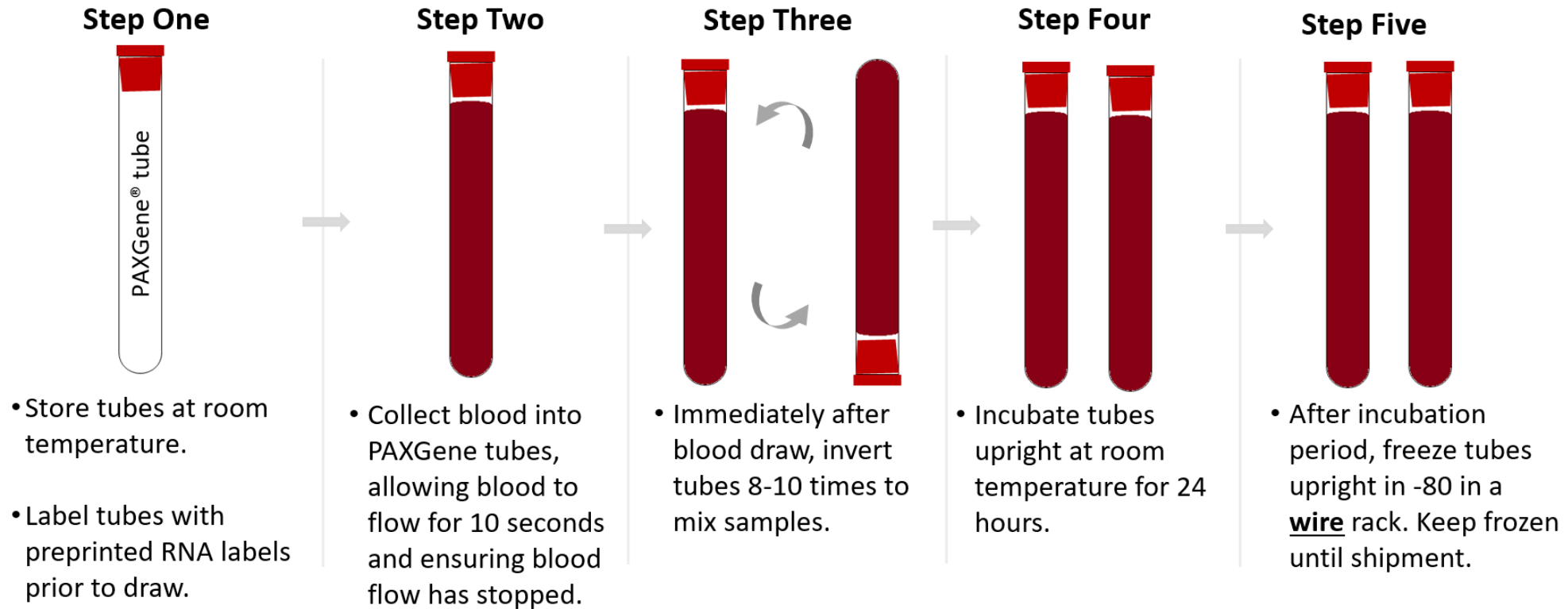
Blood Tube Draw Order



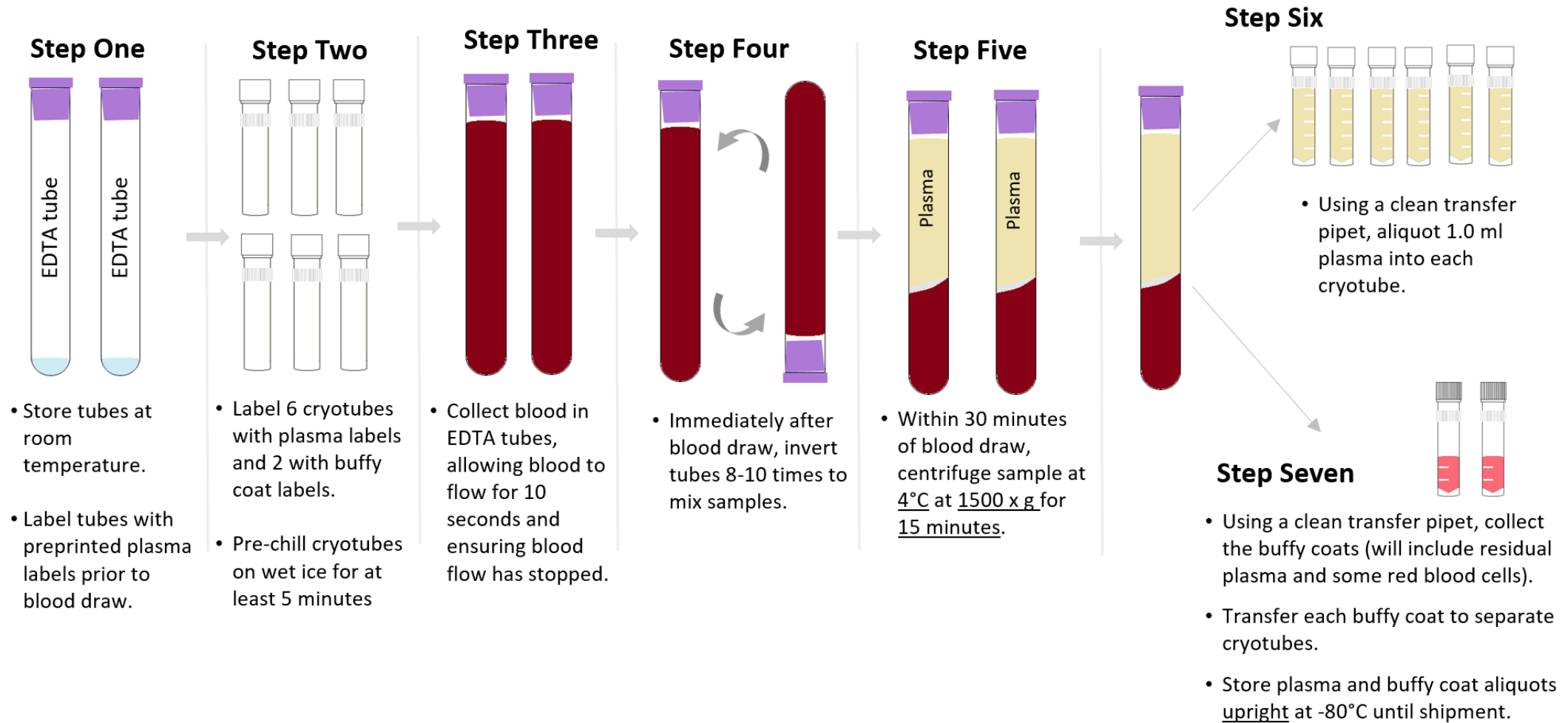
Sample Collection and Processing: Serum



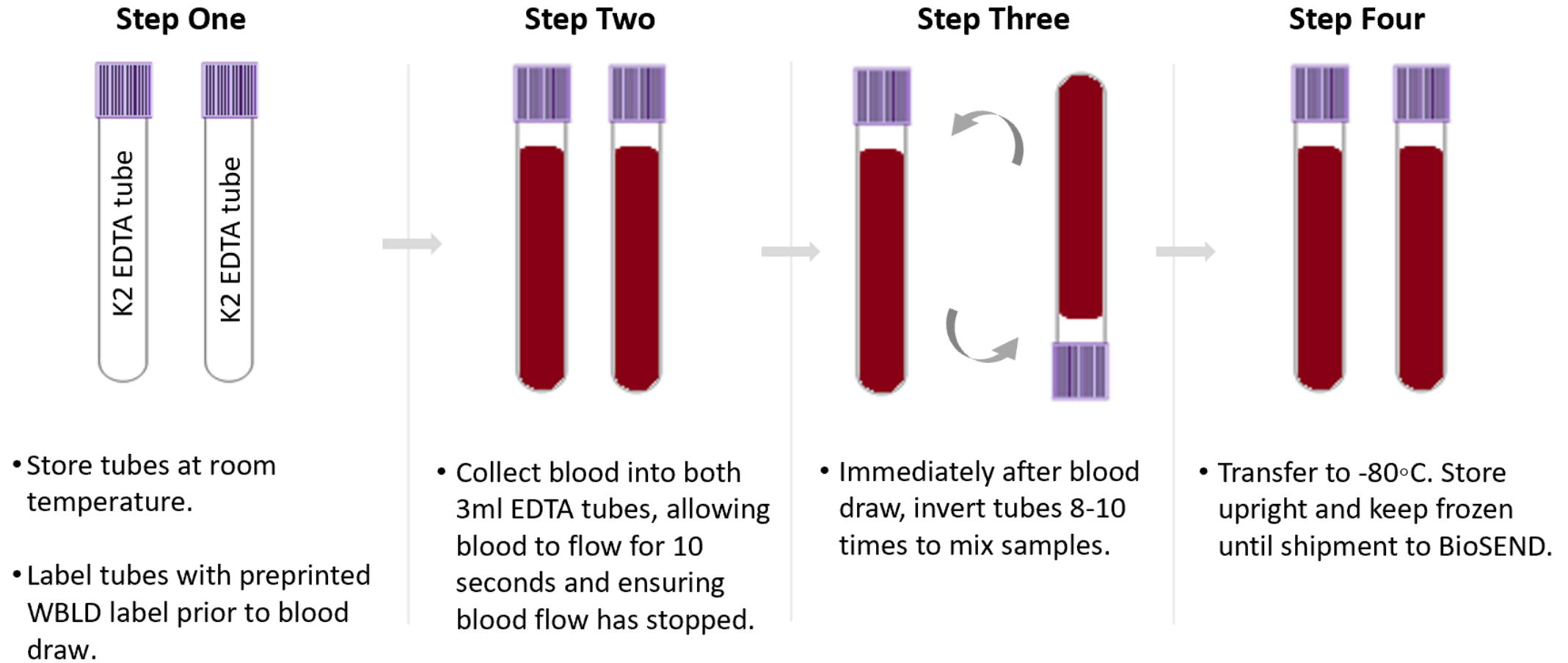
Sample Collection and Processing: RNA



Sample Collection and Processing: Plasma & Buffy Coat



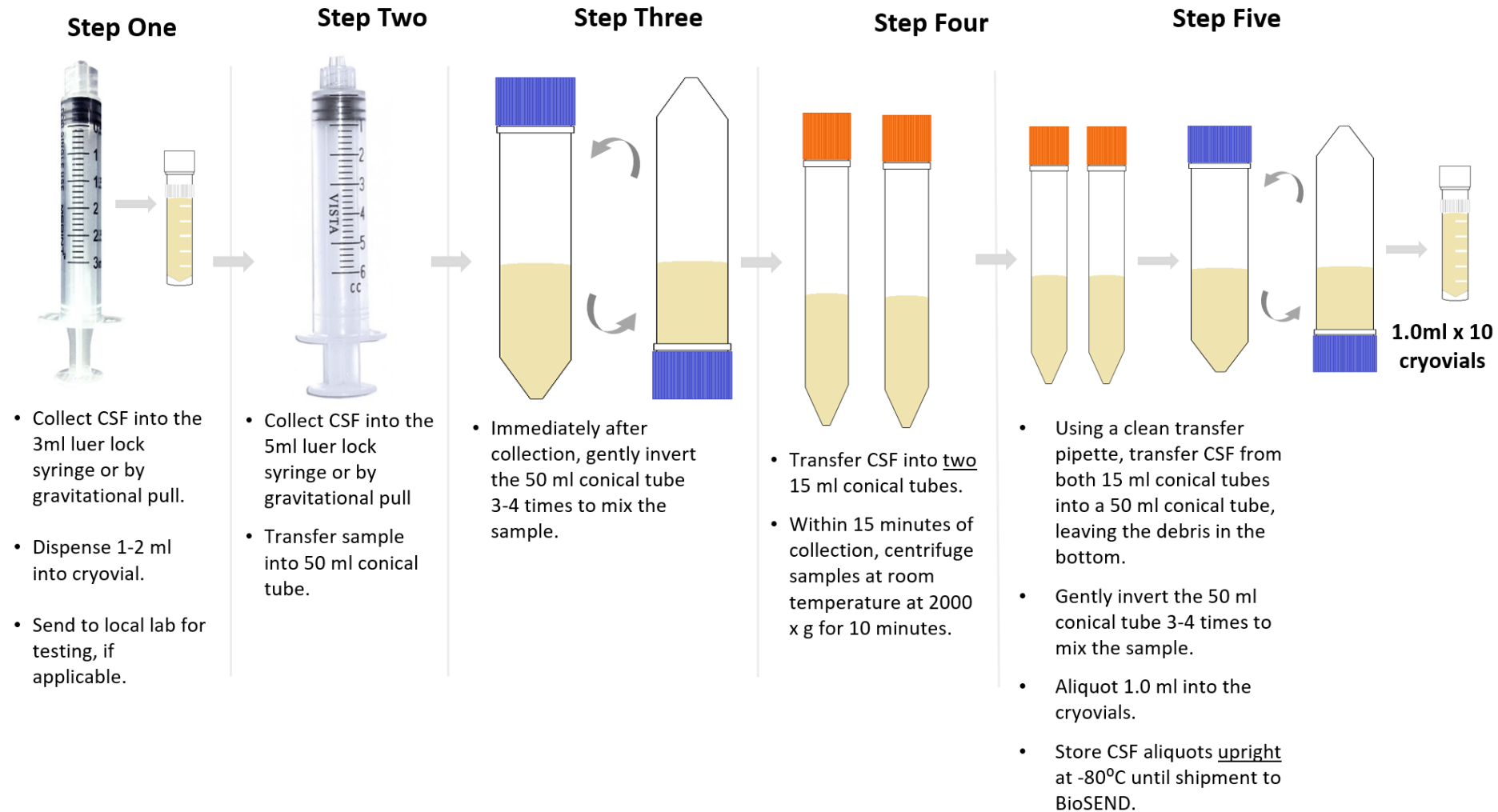
Sample Collection and Processing: Whole Blood



Blood Collection Troubleshooting

- Check expiration dates in advance of visit
- Keep extra tubes on hand
- When inverting collection tubes, be sure to **gently** invert tubes, as shaking can cause hemolysis
- Allow collection tubes to incubate for designated time
- Time from collection to freezer should not exceed two hours

Sample Collection and Processing: CSF



Shipping Samples: Frozen

Packing and Shipping Frozen Samples

- 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.



Shipping Samples

Packing and Shipping Frozen Samples

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


The image shows a Class 9 Dry Ice Label template. It features a large diamond shape with a black and white striped pattern. The label includes the following text and fields:

- Shipper's Declaration not Required.
- Dry Ice amount must be in kilograms.
- Note: 2 lbs. = 1 kg.
- Airwaybills / airbills must have the following:
 - 1. Dry Ice; 9; UN 1845
 - 2. $\frac{\text{Number p kgs}}{\text{X}} \frac{\text{wt}}{\text{Kg}}$
- Net weight of dry ice in kg (indicated by a red arrow pointing to the "kg." field)
- Dry Ice (indicated by a red arrow pointing to the "Dry Ice" text)
- UN 1845 (indicated by a red arrow pointing to the "UN 1845" text)
- Shipper's Name and Address (indicated by a red arrow pointing to the "Your name & address" field)
- Consignee Name and Address (indicated by a red arrow pointing to the "IU information and address" field)

Red annotations include arrows pointing to the "Net weight of dry ice in kg", "Dry Ice", "UN 1845", "Your name & address", and "IU information and address" fields.

Shipping Samples

UPS resources available on BioSEND website






Accessing Biospecimens

Banking Samples

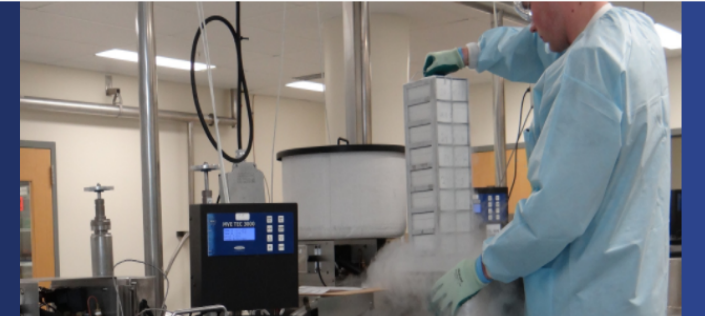
→ Active Studies

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	Withdrawn Subject Notification
LETBI Study Resources	READISCA Study Resources	



Shipping Information



Shipping Samples

Links on this page to generate airwaybills, schedule pickups, request account, and view a guide for using the UPS ShipExec Thin Client system.

Shipping Address

BioSEND
Indiana University School of Medicine
351 West 10th Street
TK-217
Indianapolis, IN 46202

UPS Shipping Resources

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

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

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.

Additional Resources

[Sample Submission Form](#)
[UPS ShipExec™ Guide](#)

Contact Us

biosend@iu.edu
317-278-0594


Shipping Samples: Frozen

Please notify BioSEND ahead of shipment

- Email biosend@iu.edu with copy of Sample Form and tracking number
- OR use Online Sample form on biosend.org

Shipping Samples: Sample Form

Sample Record and Shipment Notification



Please fill out and submit this form when shipping samples to BioSEND. After submission, please print a copy of the form to include with your submission. If you prefer to not use the online system, you may download a pdf version of this form from the sidebar to the right.

Contact Information

Site Name/Number

Coordinator

Telephone

Email

Subject Information

Study

Clinical ID

GUID

Subject ID (ST# from labels)

Gender

Visit Type

Sample Information

Date Sample(s) Shipped

FedEx Tracking Number

Draw Date	Specimen Type	# of Tubes Sent	Notation of Problems
<input type="text"/>	DNA <input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	RNA <input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	Plasma <input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	Serum <input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	CSF <input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	Whole Blood <input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	Buffy Coat <input type="text"/>	<input type="text"/>	<input type="text"/>

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.

Contacts

Indiana University

General Questions/Shipment Notifications:

biosend@iu.edu

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Claire Wegel

cwegel@iu.edu

Tel: 317.278.6158

Biorepository Clinical Research Coordinator:

Carolyn Dunifon

cdunifon@iu.edu

Tel: 317.274.5751