

BioSEND

Biospecimen Exchange for Neurological Disorders

NINDS Udall Centers of Excellence for
Parkinson's Disease Research:
University of Michigan

BIOSPECIMEN COLLECTION & PROCESSING

Overview

1. Specimen uniformity and quality
2. Site Equipment
3. Procedures
 - Kit Contents and Ordering
 - Sample Labelling
 - Sample Collection and Processing
 - Shipping Samples
 - Non-Conformance
4. Contact Information

Specimen Uniformity and Quality

GENERAL REMINDERS

Specimen Standardization and Quality

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

- Standardization of processing across sites is key
- Specimens must be processed within 2 hours of collection
- Reference the *BioSEND Biomarker Specimen Collection, Processing, and Shipment Manual* as needed
- Do not replace or supplement any kit components without first receiving approval from BioSEND/NINDS

Questions? Email biosend@iu.edu

Site Consumables and 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

Procedures

MAINTAINING SPECIMEN UNIFORMITY AND QUALITY

Biospecimen Collection Protocol

	BL
DNA (2 x 6ml)	X

Kit Contents and Ordering

- All sites will be sent a Supplemental Kit with their first kit shipment
 - Contains extra blood collection tubes and processing supplies
 - May be used to replace items in study visit kits
- Study Visit Kits should be ordered as soon as visits are planned
 - Contains collection, processing, and shipping supplies specific to each visit
 - Includes barcoded labels
 - The supplies/labels in each study visit kit are intended for that visit only

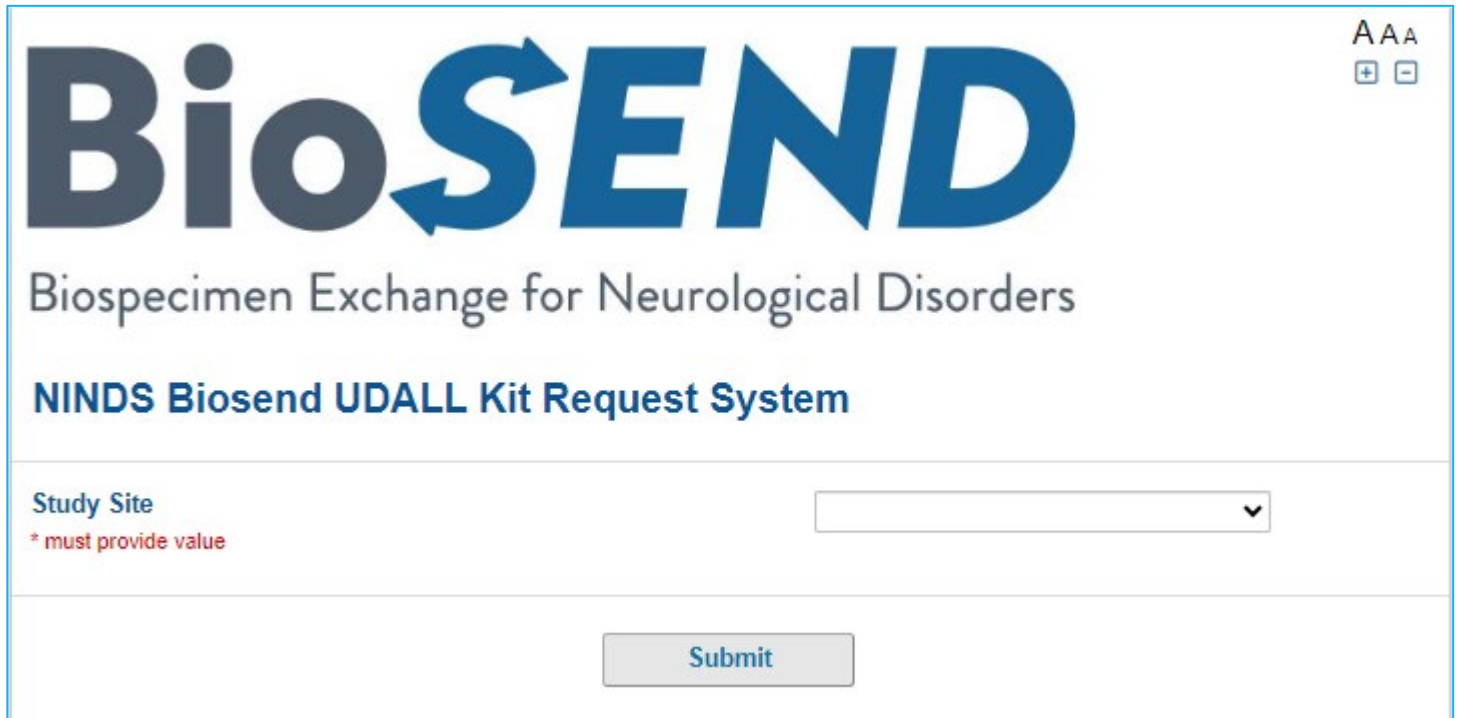
Kit Contents and Ordering – REDCap Survey

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

Order kits online through the Kit Request Module for:

- Blood Kits
- Extra Supplies

Please provide as much notice as possible when ordering kits and/or supplies.



The screenshot shows the Biosend website interface. At the top right, there are accessibility icons labeled 'AAA' with plus and minus signs. The main heading is 'BioSEND' in a large, blue, stylized font, with the 'S' containing a circular arrow. Below this is the subtitle 'Biospecimen Exchange for Neurological Disorders' and the title 'NINDS Biosend UDALL Kit Request System'. A form field labeled 'Study Site' is present, with a red asterisk and the text '* must provide value' below it. A 'Submit' button is located at the bottom center of the form area.

Kit Contents and Ordering: Confirm Site Info

UDALL Kit Request Module

Study Site <small>* must provide value</small>	Indiana Univers	Select your site from the drop-down list
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		Verify contact information and update if 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>	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

Kit Contents and Ordering: Kit Types

UDALL Kit Request Module

- Kits are not specific to a subject or time point. After collection, sites will indicate the subject and time point to which BioSEND should link the samples.

Kit Type **Please allow two weeks for shipment** <i>* must provide value</i>	<input checked="" type="radio"/> Baseline Visit Kit
	<input type="radio"/> Extra Supplies
	Please specify in comments if you need kits before the standard two week shipment time.
Baseline Visit Kit Quantity <i>* must provide value</i>	<input type="text" value="1"/>
Comments	<div style="border: 1px solid #ccc; height: 100px; width: 100%;"></div> <p style="text-align: right;">Expand</p>

Kit Contents and Ordering: Kit Breakdown

UDALL Kit Request Module

Comments

Each Baseline Kit Contains:

- 2 Purple-Top EDTA Tubes (6 ml), plastic
- 1 Biohazard bag with absorbent sheet
- 1 Ambient Shipper
- 1 UPS Overpack
- 1 Airway bill envelopes
- 1 Specimen Label Set

Submit

Kit contents of selected kit will appear at the bottom of the page

Kit Contents and Ordering: Blood Kit



Collection Volumes

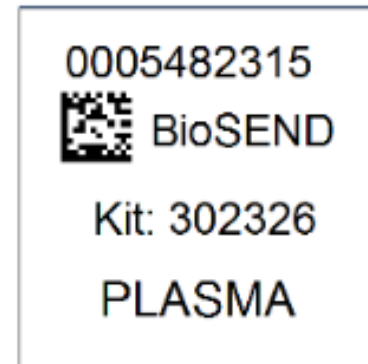
Total blood volumes

Sample Type	Amount
Whole Blood for Plasma and Buffy Coat	12 ml

Sample Labelling: Example Labels

Labels are provided by Indiana University

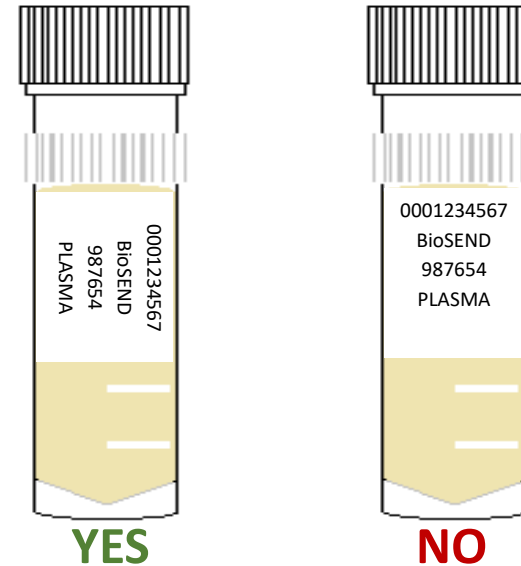
- Please check that all samples are properly labelled to ensure correct identification by IU
- If do not have enough labels to complete a visit, please contact IU *immediately*
- Labelling the tubes during processing prevents sample mix-ups



Sample Labelling: Label Placement

Please...

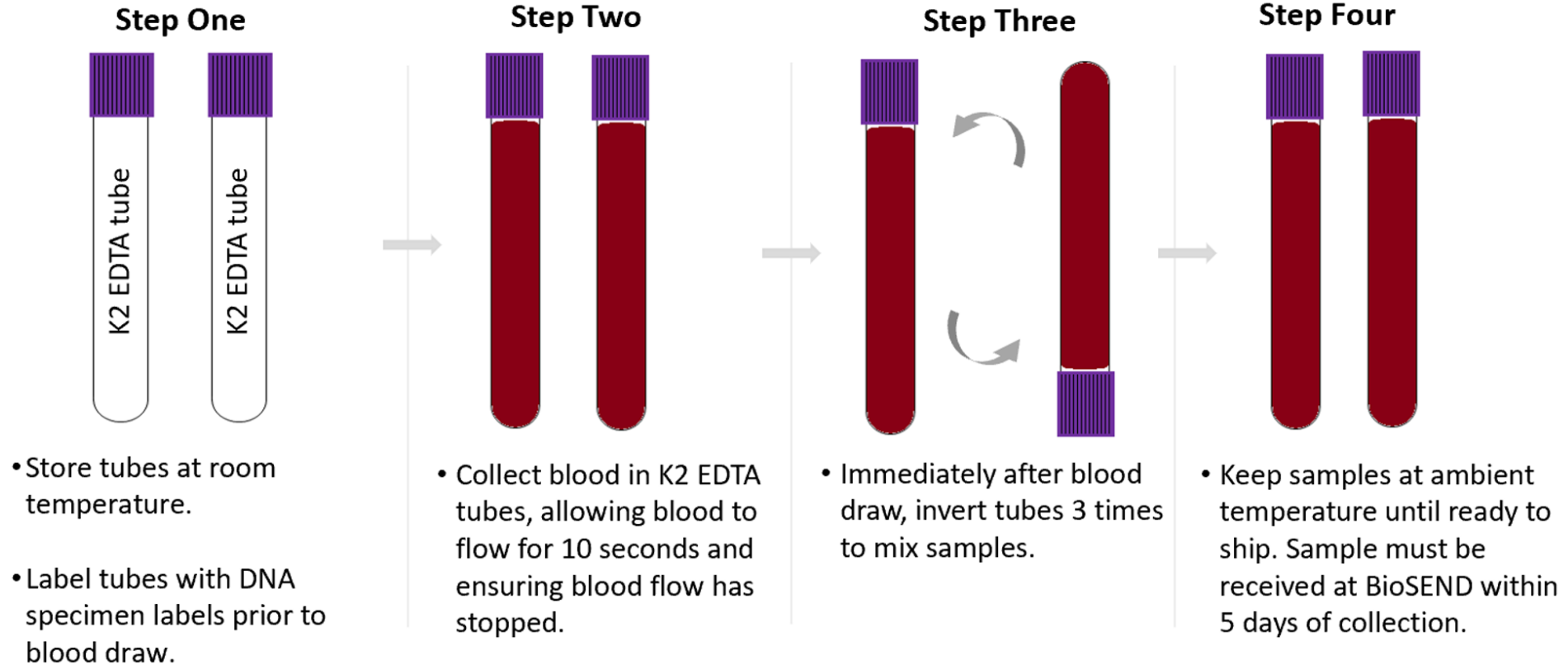
- Label all collection and aliquot tubes before cooling, collecting, processing, or freezing samples
- Label only 1 subject's tubes at a time to avoid mix-ups
- Wrap the label around the tube horizontally - label position is important for all tube types
- Make sure the label is completely adhered by rolling between your fingers



Sample Collection and Processing



Sample Collection and Processing: DNA



Sample Collection and Processing: Issue #1

Troubleshooting Blood Collection

Issue #1: Tube with little/no vacuum

- Always check expiration date on the tube before beginning blood draw and discard expired tubes
- Store tubes at “room temperature” – extreme temperature can affect vacuum
- Keep extra vacutainer tubes from supplemental kit nearby during blood draw to replace “bad” tubes
- If this is a frequent occurrence, report tube type and lot number to IU.

BioSEND

Returning?

AAA



Biospecimen Exchange for Neurological Disorders

Please verify/update the information below. When you click the "Submit" button below, a PDF copy of the Sample Record and Shipment Notification Form will be emailed to you.

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

BioSEND UDALL Michigan Study

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

IU Kit Number

Sample Collection and Processing Form

Direct link:

<https://redcap.link/UDALLMichiganSampleForm>





First part captures basic subject and visit information

Sample Collection and Processing Form

Direct link:

<https://redcap.link/UDALLMichiganSampleForm>

Second part captures collection information

Date of venipuncture blood collection	<input type="text"/>  Today M-D-Y
Time of venipuncture blood collection	<input type="text"/>  Now H:M Use 24 Hour clock
Date participant last ate	<input type="text"/>  Today M-D-Y
Time participant last ate	<input type="text"/>  Now H:M
WHOLE BLOOD for DNA	
Number of DNA tubes shipped:	<input type="text"/> Two 6ml EDTA tubes expected
DNA notes	<div style="border: 1px solid #ccc; height: 100px; width: 100%;"></div> <p style="text-align: right;">Expand</p>

UDALL Michigan Frozen Shipping Manifest

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 Kit #[kit_num] shipping container.

Study Site: University of Michigan

GUID: _____

Visit: BL

IU Kit Number: _____

Date of blood collection: _____

WHOLE BLOOD DNA

Number of DNA tubes shipped: _____

Shipping Information - Please complete.

Ambient shipments should be sent Monday-Thursday only. Please check for holiday closures prior to shipping. Contact us at biosend@iu.edu if you are unsure whether or not it is safe to ship.

Date of shipment: _____

Did/will you use the IU UPS interface to generate the shipping label? Yes No

Which shipping service did you use? UPS FedEx World Courier Other

What is the shipment tracking number? _____

Sample Collection and Processing Form

Direct link:

<https://redcap.link/UDALLMichiganSampleForm>

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

Shipping Samples: Ambient

- Ambient samples should be shipped Monday-Thursday only
- If collected on a Friday, hold sample at room temperature and ship to BioSEND the following Monday
- Sample(s) must be received at BioSEND within 5 days of collection

Shipping Samples – UPS: <https://kits.iu.edu/UPS>

The screenshot shows the shipping interface for Indiana University School of Medicine. The header includes the IU logo and the text "INDIANA UNIVERSITY SCHOOL OF MEDICINE". Below the header, the text "and Affiliated Biorepositories" is displayed. The interface is divided into two main sections: "Ship From" and "Shipment Information".

Ship From Section:

- Search for address: A search bar with a magnifying glass icon and a "Clear" button.
- Code: Input field.
- Company: Icahn School of Medicine - Mt. Sinai
- Contact: Kenny Persaud
- Address 1: 1425 Madison (Icahn Building)
- Address 2: Icahn L4 39
- Address 3: Input field.
- City: New York
- State/Province: NY
- Postal Code: 10029
- Country/Territory: United States

Shipment Information Section:

- Study Group: SSBC (dropdown menu)
- Weight: 20 (input field) LB (dropdown menu)
- Dry Ice Weight: 10 (input field) LB (dropdown menu)
- Description of Return: Biologic Specimens
- Pickup Request: A blue button.

Annotations:

- "Search for address": A dashed box around the search bar with a blue arrow pointing to it.
- "Choose Study": A dashed box around the "Study Group" dropdown with a blue arrow pointing to it.
- "Enter weight": A dashed box around the "Weight" and "Dry Ice Weight" input fields with a blue arrow pointing to them.
- "Schedule Pickup": A dashed box around the "Pickup Request" button with a blue arrow pointing to it.
- "Click 'Ship'": A dashed box around the "Ship" button at the bottom right with a blue arrow pointing to it.

Buttons:

- Clear (next to search bar)
- Pickup Request (blue button)
- Reset (bottom right)
- Ship (bottom right)

Shipping Samples via UPS

IU UPS ShipExec Shipping Portal

- Print out UPS air waybill
- Ensure all elements (barcode, return address, etc.) printed clearly
- Fold and insert UPS air waybill into clear plastic sleeve on package

JOHN SMITH
INDIANA UNIVERSITY
410 WEST 10TH STREET
INDIANAPOLIS IN 46202

2 LBS

1 OF 1

RS

SHIP TO:

SCHOOL OF MEDICINE
317-278-2694
INDIANA UNIVERSITY
TK 217
351 W 10TH ST
INDIANAPOLIS IN 46202



IN 461 9-01



UPS NEXT DAY AIR

1

TRACKING #: 1Z 976 R8W 84 3985 8595



BILLING: P/P
DESC: Biological Specimens
RETURN SERVICE

Reference No. 1: 4087277

XOL 20.03.09 NV45 83.0A 12/2019



Non-Conformance Reporting

Most common non-conformance issues:

- Samples shipped for weekend/holiday delivery
- Sample form incomplete/inaccurate
- Unlabeled or mislabeled tube(s)



Contacts

Indiana University

General Questions/Shipment Notifications:

biosend@iu.edu

317-278-6158

Request kits:

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