



North American Prodromal Synucleinopathy (NAPS2)

&

The National Centralized Repository for Alzheimer's Disease and  
Related Dementias (NCRAD)

## Biofluids Collection Training Slides



National Centralized Repository for  
Alzheimer's Disease and Related Dementias

# Contact Information

- Questions?

Please contact NCRAD Coordinators at:

- Phone: 1-800-526-2839 or 317-278-1133
- E-mail: [alzstudy@iu.edu](mailto:alzstudy@iu.edu) or [agericks@iu.edu](mailto:agericks@iu.edu)
- Website: [www.ncrad.org](http://www.ncrad.org)

# Training Overview

- GUIDs
- Specimen Collection Schedule
- Kit Request Module
- Specimen Labels
- Handling/Processing Study Specimens
- Sample Shipping
- NCRAD Website
- Questions

# Globally Unique Identifier (GUID)

- The GUID is a subject ID that allows researchers to share data specific to a study participant, without exposing personally identifiable information
- A GUID is made up of random alpha-numeric characters and does not include any PHI in the identifier

**The GUID is required for NAPS2!**

# Globally Unique Identifier (GUID)

1. Create an account: <https://bricsguid.nia.nih.gov/portal/jsp/login.jsp>
2. Once you have an account, go to the GUID Tool – Create GUID
3. To open the ‘Launch GUID Tool’ you will need to have Java installed on your device
4. When the GUID Tool is open, you will need all of the following information
  - Complete legal given (first)name of participant at **birth**
  - The participant’s middle name, if applicable
  - Complete legal family (last) name of subject at **birth**
  - Day of birth
  - Month of birth
  - Year of birth
  - Name of city/municipality in which subject was born (Using an abbreviation for the name of the city matters and will result in 2 GUIDS for the same person (i.e. Saint Louis vs St. Louis, St. Paul vs Saint Paul) It is important to be consistent.
  - Country of birth

# Specimen Collection Schedule

	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 6	Cycle 7	Cycle 8
Serum	X	X	X	X	X	X	X	X
Plasma	X	X	X	X	X	X	X	X
Buffy Coat	X	X	X	X	X	X	X	X
RNA	X	X	X	X	X	X	X	X
CSF*	X	X	X	X	X	X	X	X

\*CSF collection highly encouraged for RBD group each cycle, but not mandatory. CSF collection is mandatory for Control group in Cycle 1 and optional in following cycles.

# Kit Request Module

[www.kits.iu.edu/NAPS2](http://www.kits.iu.edu/NAPS2)

## NAPS2 ACTIVE STUDY PAGE

Welcome NAPS2 Study staff, coordinators, and PI's.

This section encompasses study specific tools and videos for your reference. If you have any questions, comments, or new ideas please contact NCRAD by [email](#) or phone **1-800-526-2839** or directly at **317-278-8413**.

### SPECIMEN COLLECTION OVERVIEW

	VISIT 1	VISIT 2	VISIT 3	VISIT 4	VISIT 5
Serum	✓	✓	✓	✓	✓
Plasma	✓	✓	✓	✓	✓
Buffy Coat*	✓	✓	✓	✓	✓
RNA	✓	✓	✓	✓	✓
CSF*	✓	✓	✓	✓	✓

\* CSF collection optional after visit 1

## Study Resources

### KIT REQUEST MODULE

Please follow the below link to access the Kit Request Module. This link will direct you to a REDCap database where study coordinators and staff may request kits, individual supplies, and/or labels. Study related sites will use the same link for ordering supplies related to blood-based samples and for CSF. Please allow a total of three weeks for kit requests to be compiled and delivered to your site.

[Kit Request System →](#)

### BIOLOGICAL SAMPLE AND SHIPMENT NOTIFICATION FORMS

Please use the below downloadable forms to collect information on specimen patient demographics, collection, and processing. We respectfully ask that all completed forms be **emailed** prior to shipment. If you complete the form on the website, you can choose to have it emailed automatically to us. We also ask that all shipments include a hard copy of each sample form.

[Blood Sample Form](#) ↓

[CSF Sample Form](#) ↓



# Kit Request Module

- Kits and individual supplies available to order:
  - Blood Collection Kit
  - CSF Kit
  - LP 22 Gauge Kit
  - LP 24 Gauge Kit
  - Blood Supplemental Kit
  - CSF Supplemental Kit
  - Frozen Shipping Kit
  - Individual Supplies

# Kit Request Module

1. Choose your site from the drop-down list.
2. The coordinator name and contact information will populate.
3. Verify that this information is correct.

Study Site	
01 - Washington University	
<b>Washington University</b>  <b>Washington University Sleep Medicine Center</b> <b>Attn: Jennifer McLeland</b> <b>1600 S. Brentwood Blvd., Suite 600</b> <b>St. Louis, MO 63144</b> <b>Phone: (314)747-3819</b> <b>Email: mclelandj@wustl.edu</b>	
<b>Is the contact name above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No
<b>Is the shipping address above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No
<b>Is the e-mail address above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No

# Kit Request Module

1. If any of the information is incorrect, please indicate so by selecting “No.”
2. A text box will appear.
3. Provide the correct information here.

<b>Is the contact name above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No	reset
<b>Contact New Name</b> <small>* must provide value</small>	<input type="text"/>	
<b>Is the shipping address above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No	reset
<b>New Shipping Address</b> <small>* must provide value</small>	<input type="text"/>	
<b>Is the e-mail address above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No	reset
<b>New E-mail Address</b> <small>* must provide value</small>	<input type="text"/>	

# Kit Request Module: Kit Selection

- Indicate the quantity needed of each kit
- Each kit will be registered for cycle 1, but you can use it for any visit
- Once selected, kit components of the chosen kit will appear at the bottom of the screen
- \*\*Note: You can order more than one type of kit in a single kit request\*\*

Total Number Blood Collection Kits Requested	<input type="text" value="1"/>
Total Number CSF Kits Requested	<input type="text"/>
Total Number of LP Trays (22 Gauge) Requested	<input type="text"/>
Total Number of LP Trays (24 Gauge) Requested	<input type="text"/>
Total Number of Supplemental Blood Kits Requested	<input type="text"/>
Total Number of Supplemental CSF Kits Requested	<input type="text"/>
Total Number of Frozen Shipping Kits Requested	<input type="text"/>
Do you require any individual supplies?	<input type="radio"/> Yes <input type="radio"/> No
<a href="#">reset</a>	

## Each Blood Collection Kit Includes (10854):

- 1: Plain Red Top Serum (Red-Top) Blood Collection Tube (10 ml) - CT006
- 4: EDTA Lavender Top Blood Collection Tube (10 ml) - CT001
- 1: PAXgene™ Blood Collection Tube (2.5 ml) - CT004
- 1: 50-ml conical polypropylene tube-individually wrapped - CV057
- 10: Cryovial (2.0 ml) with green cap - CV064
- 15: Cryovial (2.0 ml) with lavender cap - CV027
- 4: Cryovial (2.0 ml) with clear cap - CV014
- 2: Cryovial (2.0 ml) with blue cap - CV034
- 3: Cryovial (2.0 ml) with red cap - CV028
- 1: Disposable graduated transfer pipette - CV015
- 1: Microcentrifuge box (81-slot) - CV021
- 1: Resealable bag labeled w Kit bag label - ST002 & LB006
- 1: Bubble wrap tube sleeve - SH032
- 50 (total): Labels: - LB003
  - 40 - Pre-printed Collection and Aliquot Tube Label
  - 3 - Pre-printed Kit Number Label
  - 7 - Labels for Handwritten NAPS2 ID



# Kit Request Module: Kit Selection

- If individual supplies are needed, select yes, select the supplies needed, and specify quantities below.
- Click “Submit” to turn in your request.
- The IU staff will notify you that your request has been received and address any issues.

Do you require any individual supplies?

☒ Yes  
☐ No

reset

Individual Supplies Requested

☐ Cryobox (25-slot)  
☒ Cryovial tube (2.0 ml) with lavender cap  
☐ Cryovial tube (2.0 ml) with red cap  
☐ Cryovial tube (2.0 ml) with orange cap  
☐ Cryovial tube (2.0 ml) with yellow cap  
☐ Cryovial tube (2.0 ml) with blue cap  
☐ Cryovial tube (2.0 ml) with clear cap  
☐ 50-ml conical polypropylene tube-individually wrapped  
☐ 15-ml conical polypropylene tube-individually wrapped  
☐ FedEx return airbill  
☐ Shipping container for dry ice shipment (Med Frozen Shipper/Lg Brain Box) (16 x 16 x 15 1/2")  
☐ Plastic biohazard bag with absorbent sheet  
☐ Disposable graduated transfer pipette (3 ml)  
☐ EDTA (Lavender-Top) Blood Collection Tube (10 ml)  
☒ PAXgene Blood Collection Tube (2.5 ml)  
☐ Serum (Red-top) Blood Collection Tube (10 ml)  
☐ Warning label packet (UN3373, Fragile, FEDEX Dry Ice Label)  
☐ UN3373 label  
☐ Biohazard label  
☐ Dry ice shipping label  
☐ Fine Point Sharpies  
☐ NAPS ID Labels  
☐ Sprotte 22G x 3.5" (90 mm) needle  
☐ Sprotte 24G x 3.5" (90 mm) needle

Please enter individual supplies and quantities requested

3 - Cryovial tubes (2.0 ml) with lavender cap  
2 - PAXgene Blood Collection Tubes (2.5 ml)

Expand

# Kit Request Module

- Each site is responsible for ordering kits and maintaining supplies on site for their scheduled participants.
- To order kits, sites will use the Indiana University online kit ordering module: [www.kits.iu.edu/NAPS2](http://www.kits.iu.edu/NAPS2)
- Allow around **3 weeks** for your order to be processed and shipped.

# Specimen Labels

# Specimen Labels

- Label type summary:
  - Kit Number Labels
  - NAPS2 ID Labels
  - Collection Tube Labels
    - Differ by specimen type
  - Aliquot Tube Labels
    - Differ by specimen type
- All labels are provided in the kits



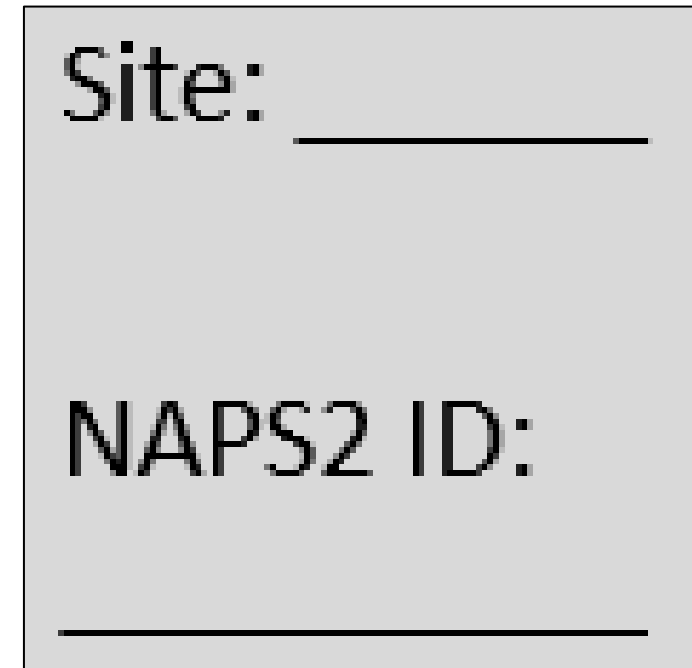
# Specimen Labels: Kit Number Labels

- Used to track patient samples and provide quality assurance
- Will be placed on:
  - Blood & CSF Sample and Shipment Notification Forms
  - Outside of cryobox(es) that houses aliquot tubes during storage and shipment
    - CSF samples will have a different kit number than blood samples



# Specimen Labels: NAPS ID Labels

- Subjects will be identified by their NAPS2 ID
- Sites will be responsible for handwriting the IDs on the provided labels
  - Fill in labels prior to adhering to tubes
  - Must use fine-point marker
- Labels will be placed on all collection tubes:
  - Serum Red Top Tube (10ml)
  - EDTA Lavender Top Tube (4 x 10 ml)
  - PAXGene™ Tube (2.5ml)

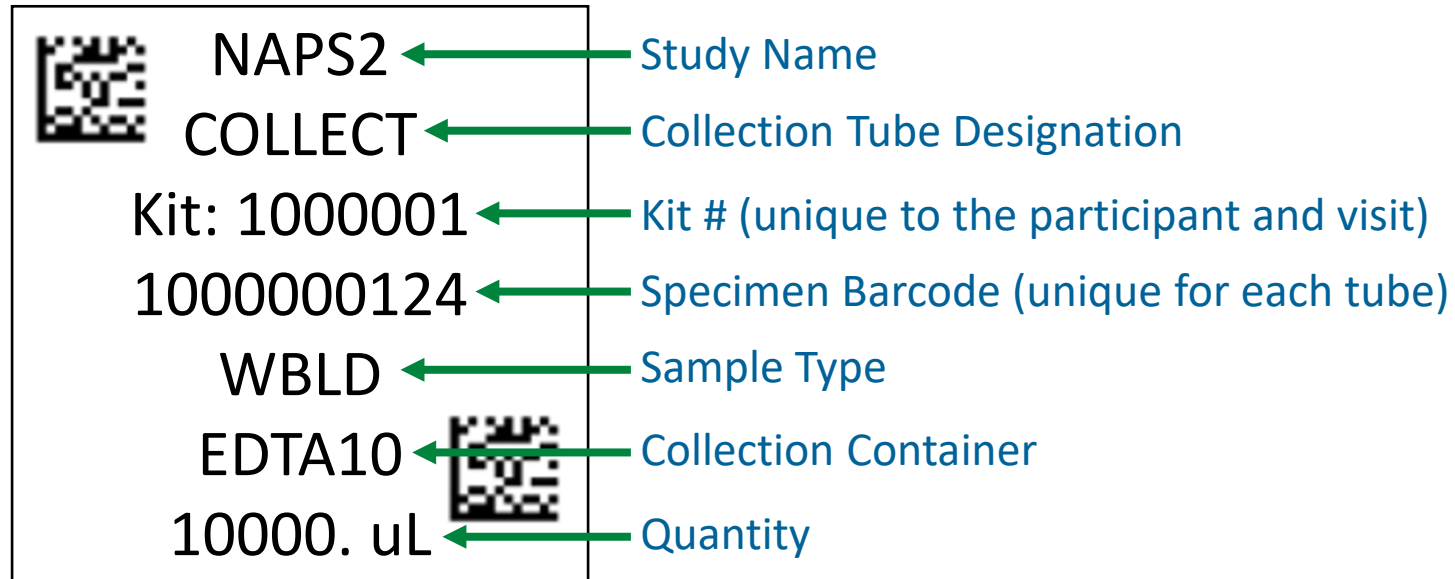


Site: \_\_\_\_\_

NAPS2 ID:

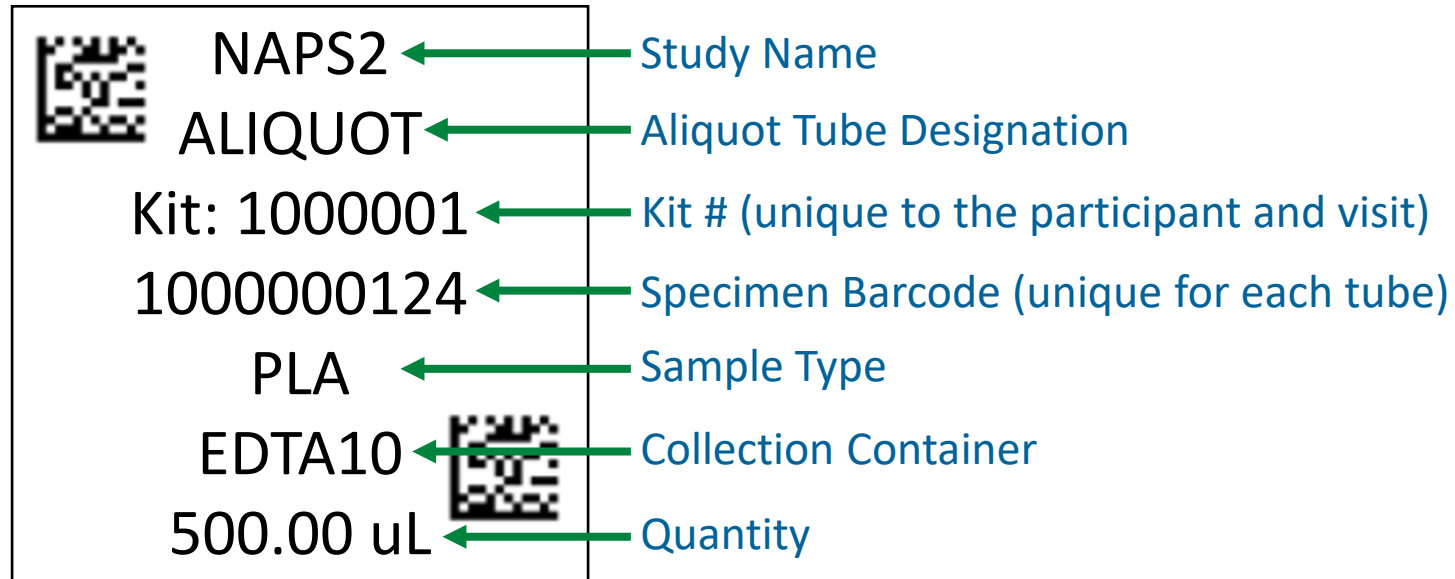
\_\_\_\_\_

# Collection Tube Labels























Labels to be placed on ALL collection tubes

# Aliquot Tube Labels



Labels to be placed on ALL aliquot tubes

# Collection and Aliquot Tube Labels

 NAPS2 COLLECT Kit: 1000001 1000000124 WBLD SERR10 10000. uL 	 NAPS2 ALIUQUOT Kit: 1000001 1000000124 SER SERR10 1500.0 uL 	 NAPS2 COLLECT Kit: 1000001 1000000124 WBLD EDTA10 10000. uL 	 NAPS2 ALIUQUOT Kit: 1000001 1000000124 PLA EDTA10 500.00 uL 	 NAPS2 ALIUQUOT Kit: 1000001 1000000124 PLA EDTA10 1000.0 uL 
 NAPS2 ALIUQUOT Kit: 1000001 1000000124 BUF EDTA10 750.00 uL 	 NAPS2 COLLECT Kit: 1000001 1000000124 WBLD RNAPXT10 10000. uL 	 NAPS2 COLLECT Kit: 1000001 1000000124 CSF STERCNT 	 NAPS2 ALIUQUOT Kit: 1000001 1000000124 CSF STERCNT 500.00 uL 	 NAPS2 ALIUQUOT Kit: 1000001 1000000124 CSF STERCNT 1000.0 uL 

Every combination of Sample Type and Collection Tube that you may encounter

Look to the **Sample Type & Collection Tube** lines to determine what tube / cryovial the label should be placed on

# Specimen Type & Collection Tube Guide

## SPECIMEN TYPE ABBREVIATIONS

WBLD	-	Whole Blood
SER	-	Serum
PLA	-	Plasma
BUF	-	Buffy Coat
CSF	-	Cerebrospinal Fluid



## COLLECTION TUBE ABBREVIATIONS

SERR10	10mL Serum Red-Top Tube
EDTA10	10mL EDTA Lavender-Top Tube
RNAPXT10	10mL RNA PAXGene Tube
STERCNT	Sterile Container (for CSF)

# Specimen Labels: Blood Collection Tubes

- All Serum, EDTA, and PAXGene™ collection tubes will have two labels:
  - Collection Tube Label
  - Site and NAPS2 ID Label

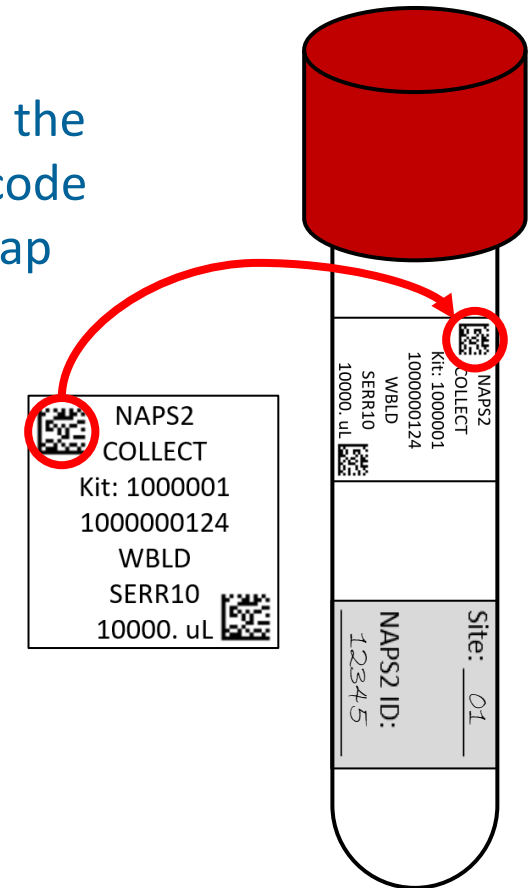
**Label 1:**

	NAPS2 COLLECT
Kit: 1000001 1000000124	
WBLD	
SERR10	
10000. uL	

**Label 2:**

Site: _____
NAPS2 ID: _____

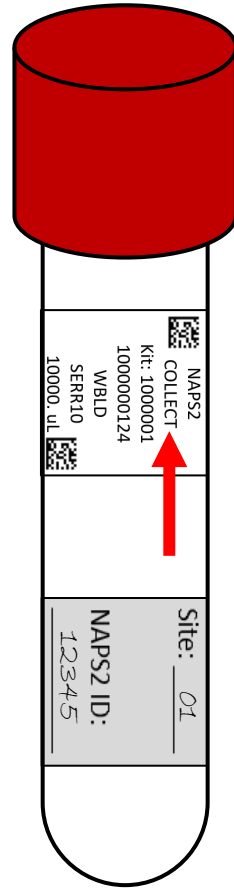
Please ensure the  
left-hand barcode  
is near the cap



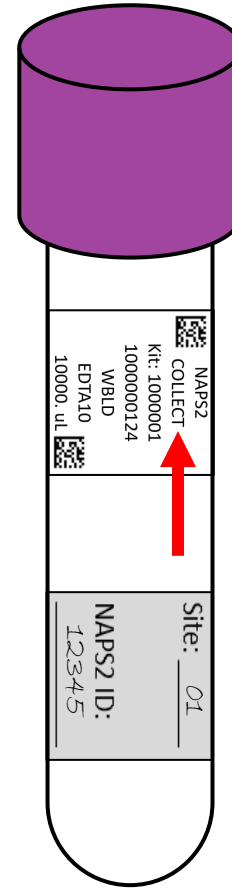
10mL Serum Tube

# Specimen Labels: Blood Collection Tubes

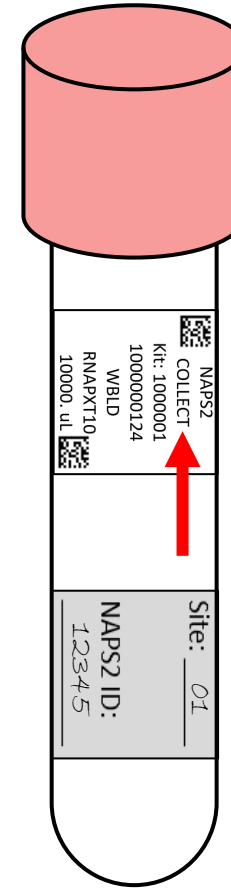
The labels on your blood collection tubes should say **COLLECT** and they should all have specimen type = **WBLD**



10mL Serum Tube



10mL EDTA Tube

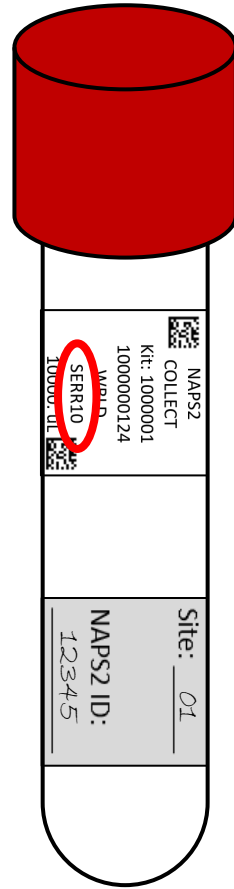


PAXgene<sup>TM</sup> Tube

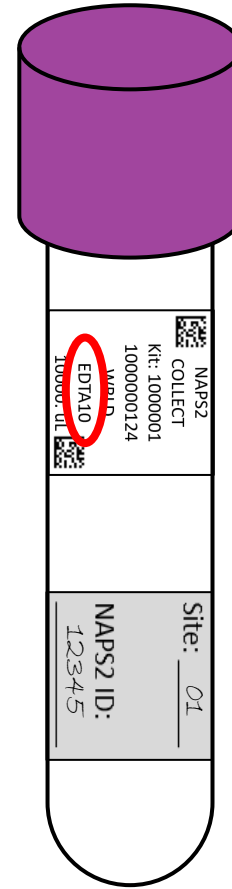


# Specimen Labels: Blood Collection Tubes

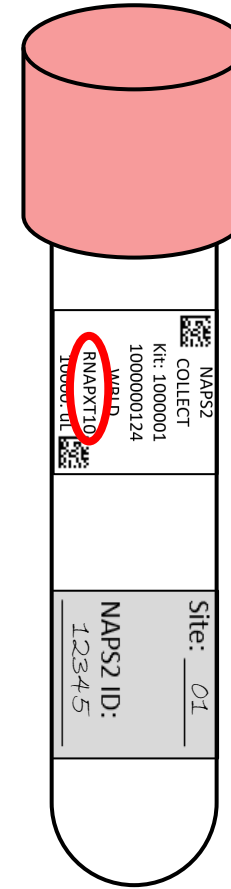
The labels will indicate the blood collection tube they should be placed on.



10mL Serum Tube



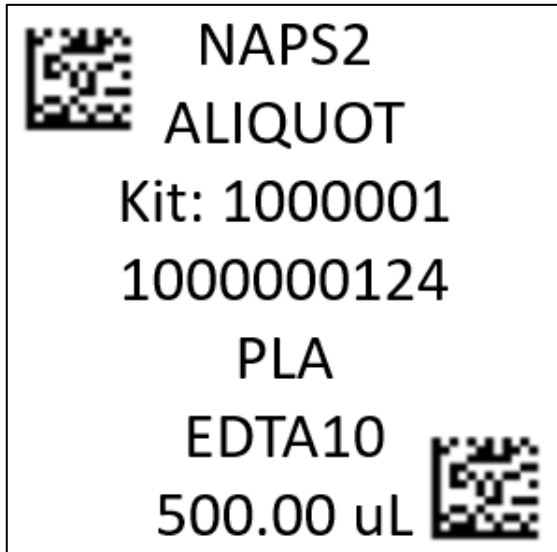
10mL EDTA Tube



PAXgene<sup>TM</sup> Tube

# Specimen Labels: Aliquot Tubes

- All aliquot tubes will have only one label:
  - Aliquot Tube Label

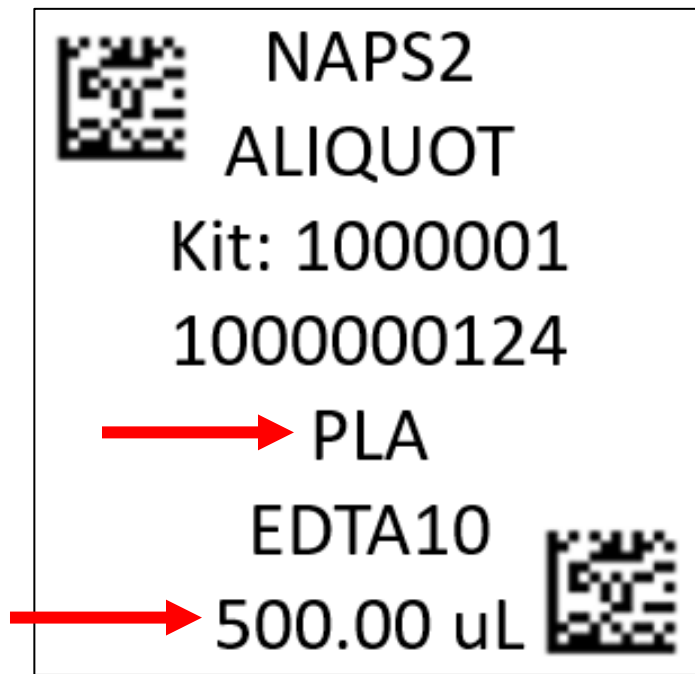


Cap Color	Sample Type
Red Cap	Serum
Green Cap	0.5ml aliquots (plasma and CSF)
Lavender Cap	1ml Plasma aliquots
Clear Cap	Buffy Coat
Blue Cap	Residual (Serum, plasma, or CSF)
Orange Cap	1ml CSF aliquots
Yellow Cap	CSF to Local Lab



# Specimen Labels: Aliquot Tubes

- All aliquot tubes will have only one label:
  - Aliquot Tube Label

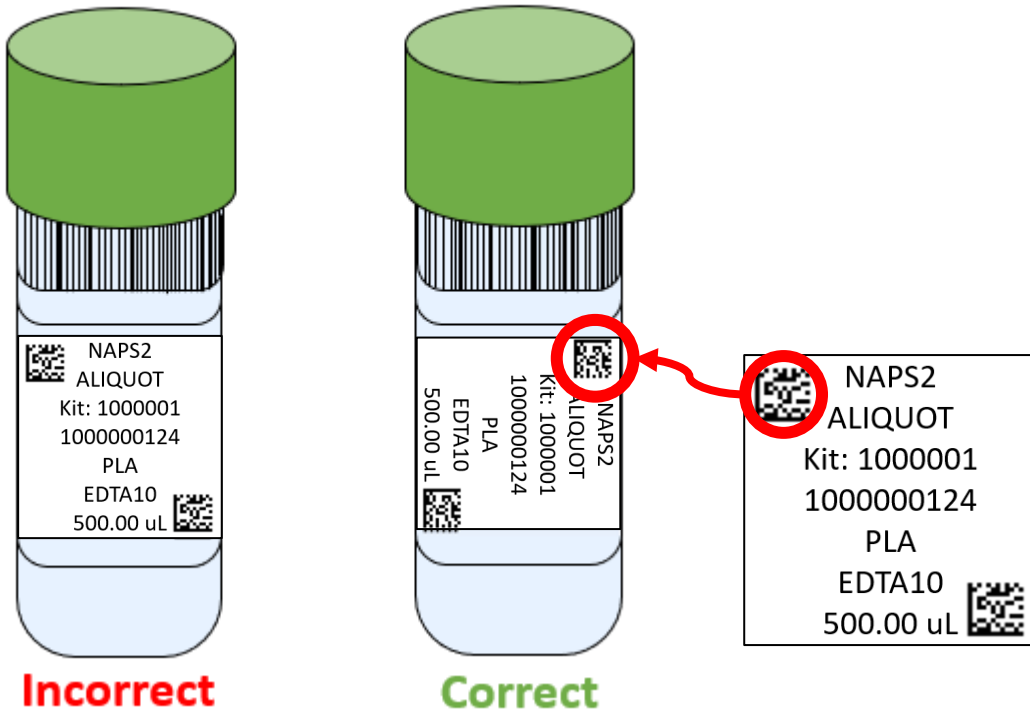


Cap Color	Sample Type
Red Cap	Serum
Green Cap	0.5ml aliquots (plasma and CSF)
Lavender Cap	1ml Plasma aliquots
Clear Cap	Buffy Coat
Blue Cap	Residual (Serum, plasma, or CSF)
Orange Cap	1ml CSF aliquots
Yellow Cap	CSF to Local Lab



# Specimen Labels: Aliquot Tubes (Serum, Plasma, Buffy Coat, and CSF)

## ALIQUOT TUBE LABELING DIAGRAM



- Place the label horizontally.
- Place the left-hand barcode near the cap.

# Specimen Labels: Yellow Aliquot Tube

**Note: NCRAD does not provide a label for the yellow aliquot tube.**

Cap Color	Sample Type
Red Cap	Serum
Green Cap	0.5ml aliquots (plasma and CSF)
Lavender Cap	1ml Plasma aliquots
Clear Cap	Buffy Coat
Blue Cap	Residual (Serum, plasma, or CSF)
Orange Cap	1ml CSF aliquots
Yellow Cap	CSF to Local Lab



# Specimen Labels: Labeling Biologic Samples

- Label all collection and aliquot tubes before 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.

# Handling/ Processing Study Specimens

# Site Required Equipment

- Blood Collection/Safety Equipment:

1. Personal Protective Equipment (PPE)
  - Lab Coat, Safety Glasses
2. Tourniquet
3. Alcohol Prep Pad
4. Gauze Pad
5. Butterfly Needles
6. Bandage
7. Sharps Bin and Lid




- Processing/Storage Equipment:

1. Centrifuge capable of  $\geq 2000$  xg with refrigeration to 4°C
2. -80°C Freezer
3. Wet Ice Bucket



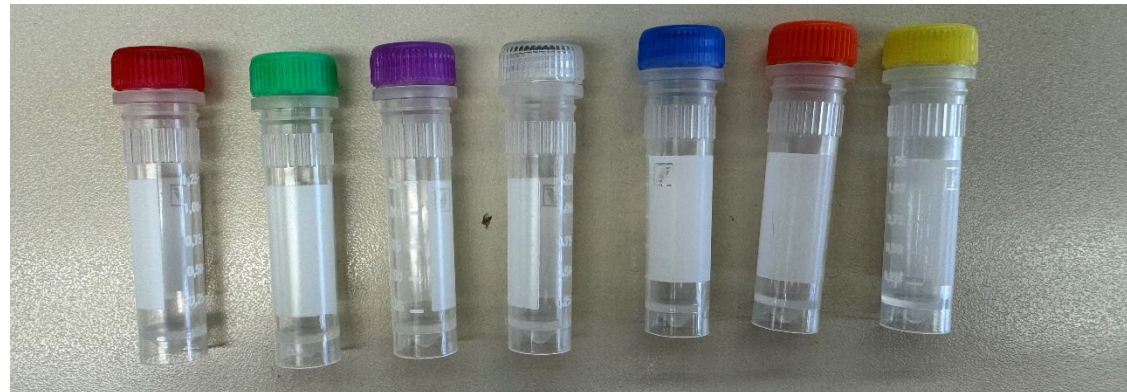
# Blood Collection & Processing:

## Sample Collection Tube

Draw Order	Tube Type	Number of Tubes Drawn (per visit)	Tube Image
1	Plain Red Top Serum Tube (10 ml)	1	
2	EDTA (Lavender-Top) Tube (10 ml)	4	
3	PAXgene™ Blood Collection Tube (2.5 ml)	1	

# Blood Collection & Processing: Aliquot Cryovials & Cap Colors

Cap Color	Sample Type
Red Cap	Serum
Green Cap	0.5ml aliquots (plasma and CSF)
Lavender Cap	1ml Plasma aliquots
Clear Cap	Buffy Coat
Blue Cap	Residual (Serum, plasma, or CSF)
Orange Cap	1ml CSF aliquots
Yellow Cap	CSF to Local Lab



To: Kelley Faber		Email: alzstudy@iu.edu		Phone: 1-800-526-2839	
<b>General Information:</b>					
From: _____		Date: _____		Kit Barcode	
Phone: _____		Email: _____			
NAPS2 ID: _____		GUID ID: _____			
Sex: M F		Year of Birth: _____			
Visit (circle one): Cycle 1   Cycle 2   Cycle 3   Cycle 4   Cycle 5   Cycle 6   Cycle 7   Cycle 8					
Select one: <input type="checkbox"/> Case <input type="checkbox"/> Control					
Tracking #: _____ CSF Collected? Yes   No					
<b>Blood Collection:</b>					
Blood Collected (circle one): Yes   No					
1. Date Drawn: _____ [MMDDYYYY]		2. Time of Draw: 24 hour clock: _____ [HHMM]			
3. Date subject last ate: _____ [MMDDYYYY]		4. Last time subject ate: 24 hour clock: _____ [HHMM]			
<b>Blood Processing:</b>					
<u>RNA (PAXgene Tube)</u>					
Total volume of blood drawn into a 1 x 2.5mL PAXgene RNA tube: _____ mL					
Date PAXgene RNA tube placed in -80°C freezer: _____					
Time PAXgene RNA tube placed in -80°C freezer: 24 hour clock: _____ [HHMM]					
<u>Serum (Red Top Tube)</u>					
Time spin started: 24 hour clock: _____ [HHMM]		Duration of centrifuge: _____ minutes			
Temp of centrifuge: _____ °C		Rate of centrifuge: _____ x g			
Original volume drawn (1x10mL Serum tube): _____ mL					
Time aliquoted: _____ [HHMM]		Number of 1.5mL serum aliquots created: _____ x 1.5mL			
If applicable, volume of residual serum aliquot (less than 1.5 mL) (Blue cap): _____ mL					
If applicable, specimen number of residual serum aliquot (Last four digits): _____					
Time aliquots placed in freezer: 24 hour clock: _____ [HHMM]		Storage temperature of freezer: _____ °C			
<u>Plasma &amp; Buffy Coat (EDTA (Lavender Top) Tube - 10mL)</u>					
Time spin started: 24 hour clock: _____ [HHMM]		Duration of centrifuge: _____ minutes			
Temp of centrifuge: _____ °C		Rate of centrifuge: _____ x g			
Original volume drawn (4x10mL EDTA tube):					
EDTA #1: _____ mL	EDTA #2: _____ mL	EDTA #3: _____ mL	EDTA #4: _____ mL	Total Volume: _____ mL	
Time aliquoted: _____ [HHMM]					
<u>Plasma</u>					
Number of 0.5mL plasma aliquots created (green cap): _____ x 0.5mL					
Number of 1.0mL plasma aliquots created (purple cap): _____ x 1.0mL					
If applicable, volume of residual serum aliquot (Blue cap): _____ mL					
If applicable, specimen number of residual plasma aliquot (Last four digits): _____					
Time aliquots placed in freezer: 24 hour clock: _____ [HHMM]					
<u>Buffy Coat</u>					
Buffy Coat aliquot #1 (last four digits): _____		Buffy Coat aliquot #2 (last four digits): _____			
Buffy Coat aliquot #1 Volume: _____ mL		Buffy Coat aliquot #2 Volume: _____ mL			
Buffy Coat aliquot #3 (last four digits): _____		Buffy Coat aliquot #4 (last four digits): _____			
Buffy Coat aliquot #3 Volume: _____ mL		Buffy Coat aliquot #4 Volume: _____ mL			
Time aliquots placed in freezer: 24 hour clock: _____ [HHMM]		Storage temperature of freezer: _____ °C			
Notes:					

To: <u>Kelley Faber</u>		Email: <u>alzstudy@iu.edu</u>	Phone: <u>1-800-526-2839</u>
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**General Information:**

From: <u>Coordinator Name</u>	Date: <u>05/08/2024</u>	Kit Barcode
Phone: <u>111-111-1111</u>	Email: <u>Email@email.com</u>	
NAPS2 ID: <u>NAPS2-00000</u>	GUID ID: <u>NDAR0000000</u>	
Sex: <u>M</u> F	Year of Birth: <u>1900</u>	

Visit (circle one): Cycle 1 Cycle 2 Cycle 3 Cycle 4 Cycle 5 Cycle 6 Cycle 7 Cycle 8

Select one: ☒ Case ☐ Control

Tracking #: \_\_\_\_\_ CSF Collected? Yes No

**Blood Collection:** Blood Collected (circle one): Yes No

1. Date Drawn: <u>05/08/2024</u> [MMDDYYYY]	2. Time of Draw: 24 hour clock: _____ [HHMM]
3. Date subject last ate: _____ [MMDDYYYY]	4. Last time subject ate: 24 hour clock: _____ [HHMM]

**Blood Processing:**

RNA (PAXgene Tube)

Total volume of blood drawn into a 1 x 2.5mL PAXgene RNA tube: \_\_\_\_\_ mL

Date PAXgene RNA tube placed in -80°C freezer: \_\_\_\_\_

Time PAXgene RNA tube placed in -80°C freezer: 24 hour clock: \_\_\_\_\_ [HHMM]

Serum (Red Top Tube)

Time spin started: 24 hour clock: \_\_\_\_\_ [HHMM] Duration of centrifuge: \_\_\_\_\_ minutes

Temp of centrifuge: \_\_\_\_\_ °C Rate of centrifuge: \_\_\_\_\_ x g

Original volume drawn (1x10mL Serum tube): \_\_\_\_\_ mL

Time aliquoted: \_\_\_\_\_ [HHMM] Number of 1.5mL serum aliquots created: \_\_\_\_\_ x 1.5mL

If applicable, volume of residual serum aliquot (less than 1.5 mL) (Blue cap): \_\_\_\_\_ mL

If applicable, specimen number of residual serum aliquot (Last four digits): \_\_\_\_\_

Time aliquots placed in freezer: 24 hour clock: \_\_\_\_\_ [HHMM] Storage temperature of freezer: \_\_\_\_\_ °C

Plasma & Buffy Coat (EDTA (Lavender Top) Tube - 10mL)

Time spin started: 24 hour clock: \_\_\_\_\_ [HHMM] Duration of centrifuge: \_\_\_\_\_ minutes

Temp of centrifuge: \_\_\_\_\_ °C Rate of centrifuge: \_\_\_\_\_ x g

Original volume drawn (4x10mL EDTA tube): \_\_\_\_\_

EDTA #1: \_\_\_\_\_ mL EDTA #2: \_\_\_\_\_ mL EDTA #3: \_\_\_\_\_ mL EDTA #4: \_\_\_\_\_ mL Total Volume: \_\_\_\_\_ mL

Time aliquoted: \_\_\_\_\_ [HHMM]

Plasma

Number of 0.5mL plasma aliquots created (green cap): \_\_\_\_\_ x 0.5mL

Number of 1.0mL plasma aliquots created (purple cap): \_\_\_\_\_ x 1.0mL

If applicable, volume of residual serum aliquot (Blue cap): \_\_\_\_\_ mL

If applicable, specimen number of residual plasma aliquot (Last four digits): \_\_\_\_\_

Time aliquots placed in freezer: 24 hour clock: \_\_\_\_\_ [HHMM]

Buffy Coat

Buffy Coat aliquot #1 (last four digits): \_\_\_\_\_ Buffy Coat aliquot #2 (last four digits): \_\_\_\_\_

Buffy Coat aliquot #1 Volume: \_\_\_\_\_ mL Buffy Coat aliquot #2 Volume: \_\_\_\_\_ mL

Buffy Coat aliquot #3 (last four digits): \_\_\_\_\_ Buffy Coat aliquot #4 (last four digits): \_\_\_\_\_

Buffy Coat aliquot #3 Volume: \_\_\_\_\_ mL Buffy Coat aliquot #4 Volume: \_\_\_\_\_ mL

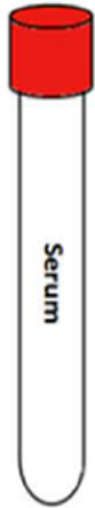
Time aliquots placed in freezer: 24 hour clock: \_\_\_\_\_ [HHMM] Storage temperature of freezer: \_\_\_\_\_ °C

Notes: \_\_\_\_\_

# Serum Preparation (10ml Red Top Tube)



Step One



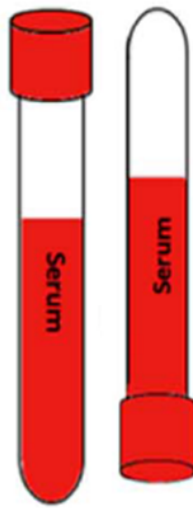
- Store tubes at room temperature.
- Label tubes and cryovials with pre-printed subject labels prior to blood draw.

Step Two



- Collect blood in Serum Tube allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

Step Three



- Immediately after blood draw, invert tube 5 times to mix samples.

Step Four



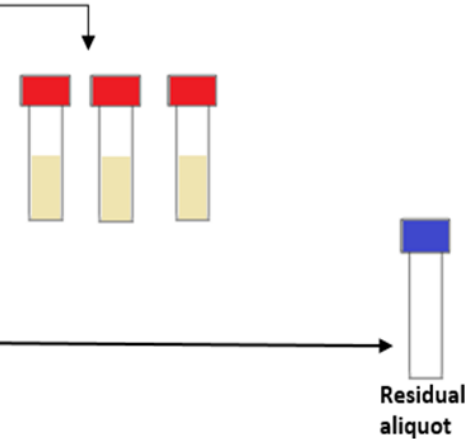
- Allow blood to clot for 30 minutes.
- Within 60 minutes of blood draw, centrifuge samples at 2000 x g for 10 minutes at 4°C.

\*Serum tube should remain upright while clotting

Step Five

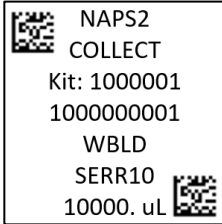


- Must be spun, aliquoted, and stored in -80°C freezer within 2 hours of collection.

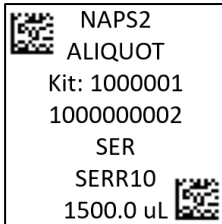


- Adhere preprinted labels to the red-cap cryovials.
- Aliquot 1.5 ml into each cryovial tube.
- If a residual aliquot is created, document specimen number and volume on Sample Notification Form.
- Store serum aliquots at -80°C until shipment.

# Serum Labeling

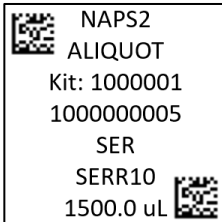
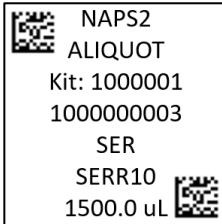
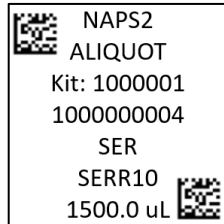


1 x 10mL Plain Red-Top Serum Blood  
Collection Tube. Use the label with:  
Sample Type = WBLD  
Volume = 10000 uL



3 x Red-Cap Cryovials. Use the 3 labels  
with the smallest specimen barcode  
numbers and:

Sample Type = SER  
Volume = 1500 uL



1 x Blue-Cap Cryovial. Use the label with the highest  
specimen barcode number and:  
Sample Type = SER  
Volume = 1500 uL

Site: \_\_\_\_\_

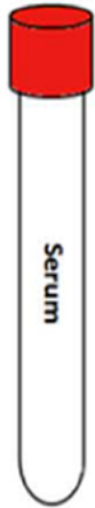
NAPS2 ID: \_\_\_\_\_

1 x 10mL Plain Red-Top  
Serum Blood Collection  
Tube

# Serum Preparation (10ml Red Top Tube)



Step One



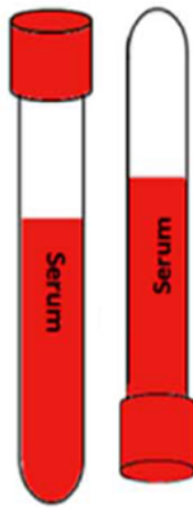
- Store tubes at room temperature.
- Label tubes and cryovials with pre-printed subject labels prior to blood draw.

Step Two



- Collect blood in Serum Tube allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

Step Three



- Immediately after blood draw, invert tube 5 times to mix samples.

Step Four



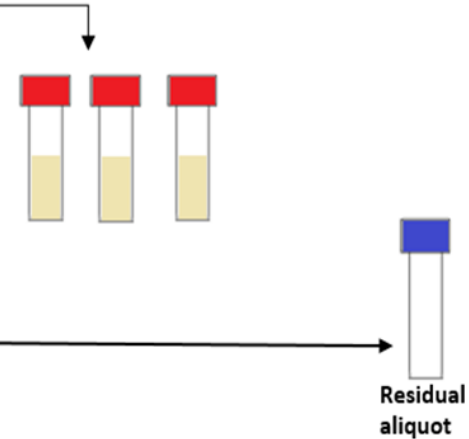
- Allow blood to clot for 30 minutes.
- Within 60 minutes of blood draw, centrifuge samples at 2000 x g for 10 minutes at 4°C.

\*Serum tube should remain upright while clotting

Step Five



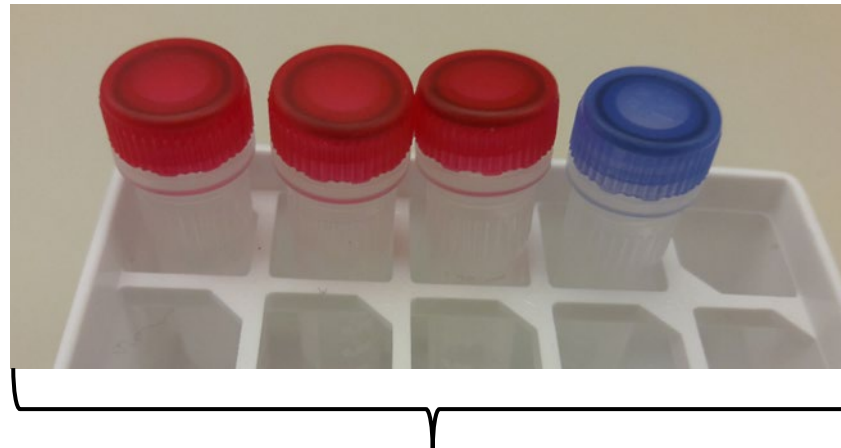
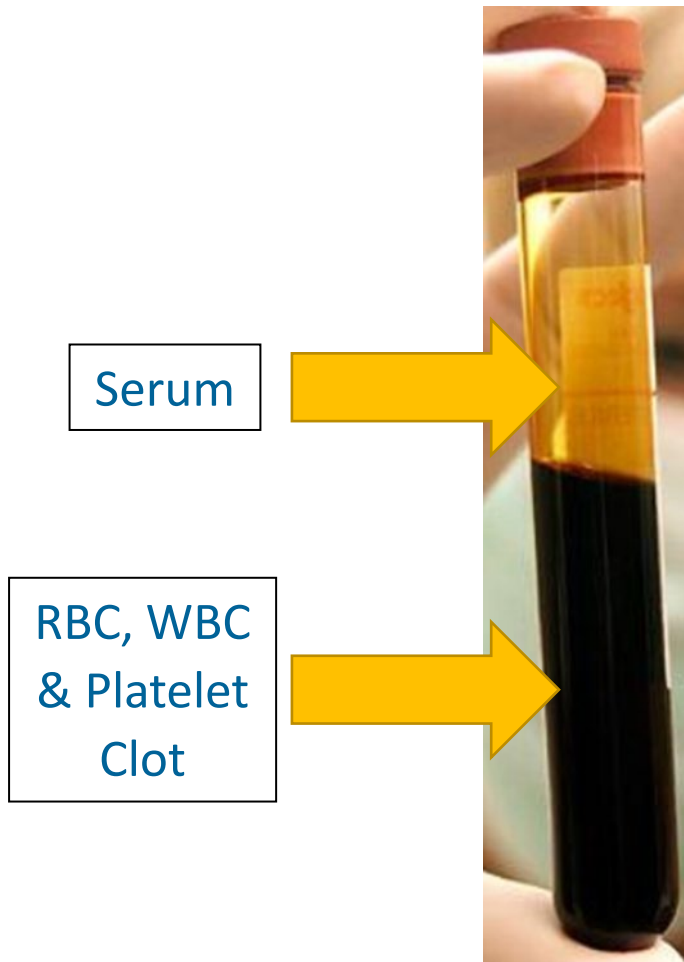
- Must be spun, aliquoted, and stored in -80°C freezer within 2 hours of collection.



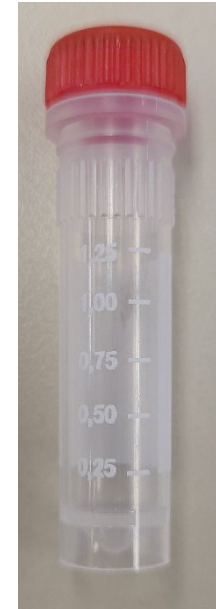
- Adhere preprinted labels to the red-cap cryovials.
- Aliquot 1.5 ml into each cryovial tube.
- If a residual aliquot is created, document specimen number and volume on Sample Notification Form.
- Store serum aliquots at -80°C until shipment.



# Red Top Tube – Serum Collection



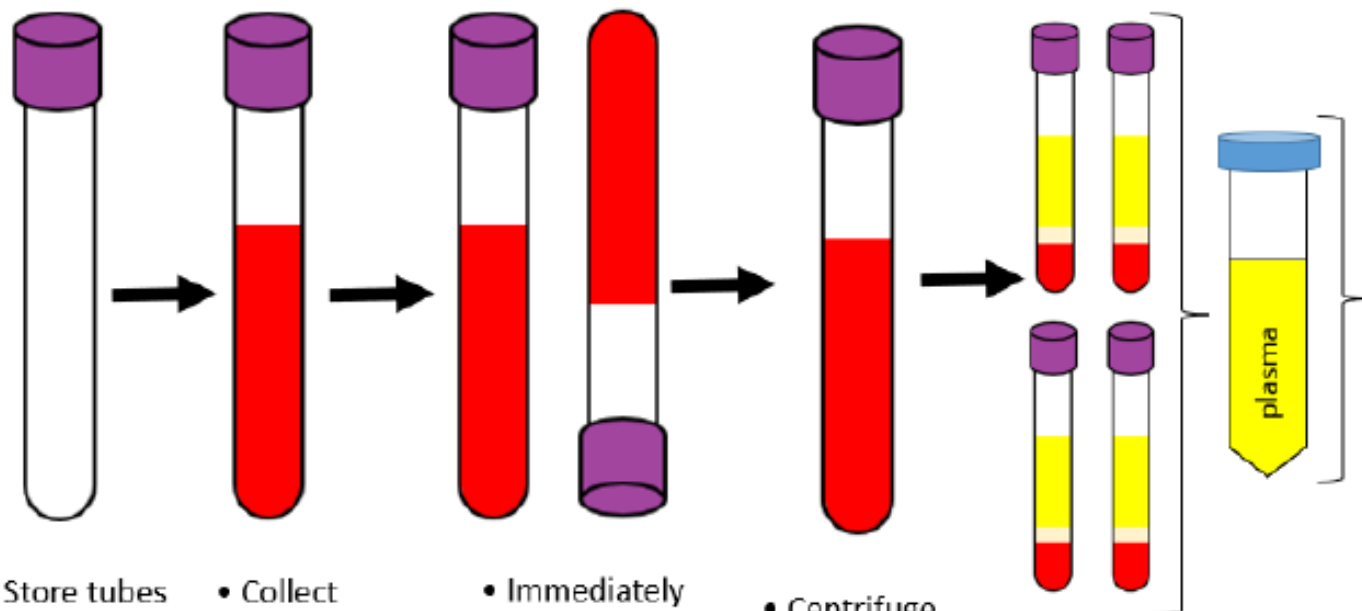
Serum Aliquots (up to 4 possible, including the residual)



Close up view of  
2.0 ml Cryovial



## Plasma & Buffy Coat Preparation (EDTA Tube x 4)



- Store tubes at room temp
- Each tube should be labeled with Collection Tube and Site and PTID labels.

- Collect Blood into 1 EDTA tube, allowing blood to flow for 10 seconds and ensuring blood flow has stopped

- Immediately after blood draw, invert tube 8-10 times to mix sample.

- Centrifuge samples at 2000 x g for 10 minutes at 4°C



- 10 x 0.5 ml aliquots of plasma into green cap cryovials



- 15 x 1.0 ml aliquots of plasma into purple cap cryovials



- If residual aliquot is created, use the blue-capped cryovial and a "PLASMA" label. Document specimen number and volume on Sample Form

- Store plasma aliquots upright at -80°C until shipment to NCRAD



- Aliquot the buffy coat from each EDTA tube separately, into its own cryovial

- 4 x 1.0 ml aliquots of the buffy coat (may have some residual plasma and RBCs included) into the clear-capped cryovials.


- Store buffy coat aliquot upright at -80°C until shipment to NCRAD

\*Ensure tubes are not expired prior to blood draw\*


\*Spin, aliquot, and freeze all plasma and buffy coat aliquots within 2 hours of collection\*

\*\*Please be sure to compare the labels on each tube and cryovials to the Biological Sample Form included with each kit\*\*


# EDTA Tube – Plasma & Buffy Coat Labeling




NAPS2  
COLLECT  
Kit: 1000001  
1000000006  
WBLD  
EDTA10  
10000. uL




through




NAPS2  
COLLECT  
Kit: 1000001  
1000000009  
WBLD  
EDTA10  
10000. uL




4 x 10mL EDTA Purple-Top Blood  
Collection Tubes. Use the labels with:  
Sample Type = WBLD  
Volume = 10000 uL




NAPS2  
ALIUOT  
Kit: 1000001  
1000000035  
PLA  
EDTA10  
1000.0 uL




1 x Blue-Cap Cryovial. Use the label with the  
highest specimen barcode number and:  
Sample Type = PLA  
Volume = 1000 uL




NAPS2  
ALIUOT  
Kit: 1000001  
1000000010  
PLA  
EDTA10  
500.00 uL




through




NAPS2  
ALIUOT  
Kit: 1000001  
1000000019  
PLA  
EDTA10  
500.00 uL




10 x Green-Cap Cryovials. Use the  
10 labels with:  
Sample Type = PLA  
Volume = 500 uL




NAPS2  
ALIUOT  
Kit: 1000001  
1000000036  
BUF  
EDTA10  
750.00 uL




through




NAPS2  
ALIUOT  
Kit: 1000001  
1000000039  
BUF  
EDTA10  
750.00 uL




4 x Clear-Cap Cryovials.  
Use the 4 labels with:  
Sample Type = BUF  
Volume = 750 uL




NAPS2  
ALIUOT  
Kit: 1000001  
1000000020  
PLA  
EDTA10  
1000.0 uL



through



NAPS2  
ALIUOT  
Kit: 1000001  
1000000034  
PLA  
EDTA10  
1000.0 uL



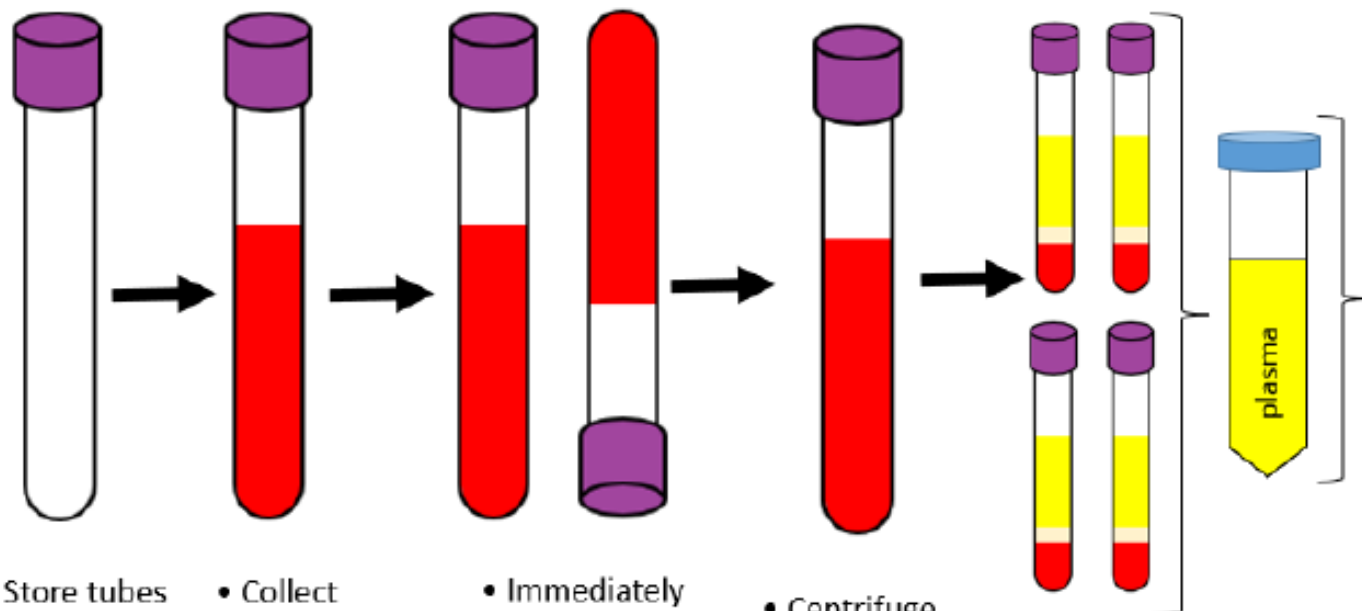
15 x Purple-Cap Cryovials. Use the 15  
labels with the smallest specimen  
barcode numbers and:  
Sample Type = PLA  
Volume = 1000 uL

Site: \_\_\_\_\_

NAPS2 ID: \_\_\_\_\_

4 x 10mL EDTA Purple-Top Blood  
Collection Tubes

## Plasma & Buffy Coat Preparation (EDTA Tube x 4)



- Store tubes at room temp
- Each tube should be labeled with Collection Tube and Site and PTID labels.

- Collect Blood into 1 EDTA tube, allowing blood to flow for 10 seconds and ensuring blood flow has stopped

- Immediately after blood draw, invert tube 8-10 times to mix sample.

- Centrifuge samples at 2000 x g for 10 minutes at 4°C



- 10 x 0.5 ml aliquots of plasma into green cap cryovials



- 15 x 1.0 ml aliquots of plasma into purple cap cryovials



- If residual aliquot is created, use the blue-capped cryovial and a "PLASMA" label. Document specimen number and volume on Sample Form

- Store plasma aliquots upright at -80°C until shipment to NCRAD



- Aliquot the buffy coat from each EDTA tube separately, into its own cryovial

- 4 x 1.0 ml aliquots of the buffy coat (may have some residual plasma and RBCs included) into the clear-capped cryovials.

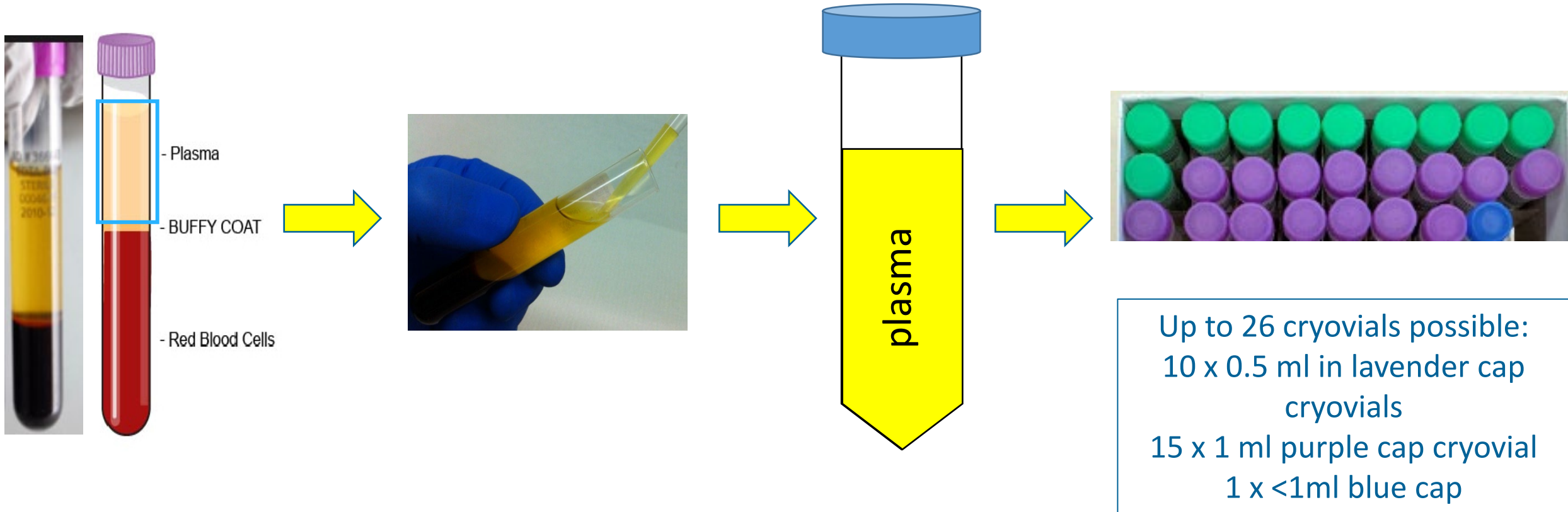
- Store buffy coat aliquot upright at -80°C until shipment to NCRAD

\*Ensure tubes are not expired prior to blood draw\*

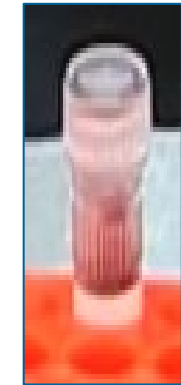
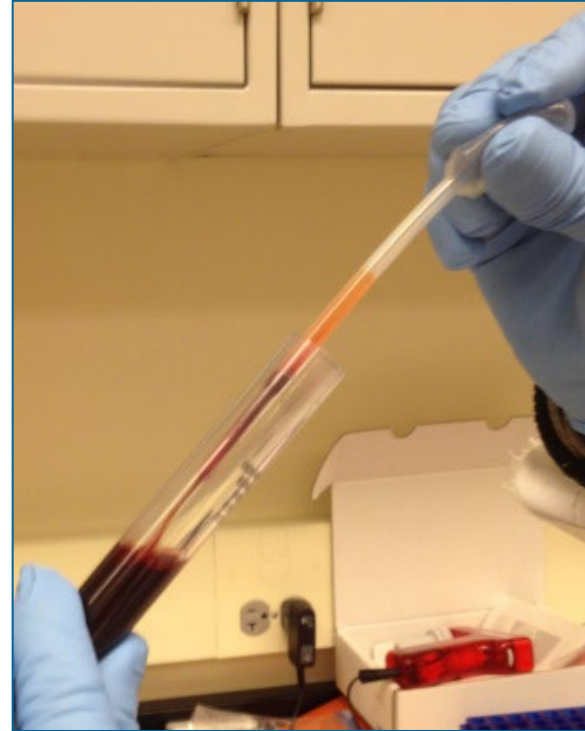
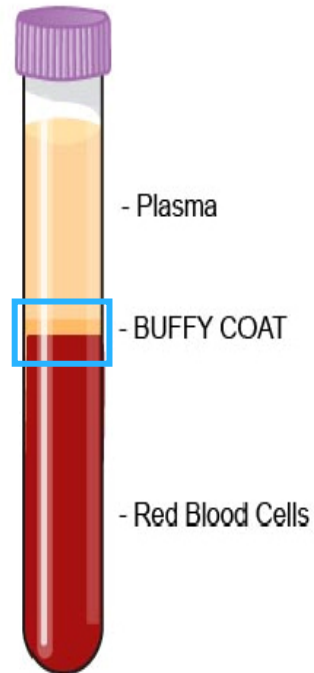
\*Spin, aliquot, and freeze all plasma and buffy coat aliquots within 2 hours of collection\*

\*\*Please be sure to compare the labels on each tube and cryovials to the Biological Sample Form included with each kit\*\*

# EDTA Tube – Plasma Collection



# EDTA Tube – Buffy Coat Collection



Buffy Coat  
Aliquot  
(Please use  
**CLEAR CAP**  
cryovial)

\*Sites have the option of storing 1-2 buffy coats per participant per visit locally.

# RNA Preparation (2.5ml PAXgene™ Tube)

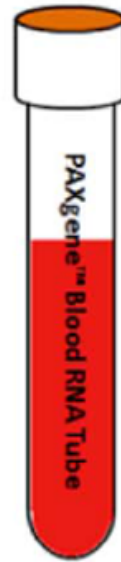


Step One



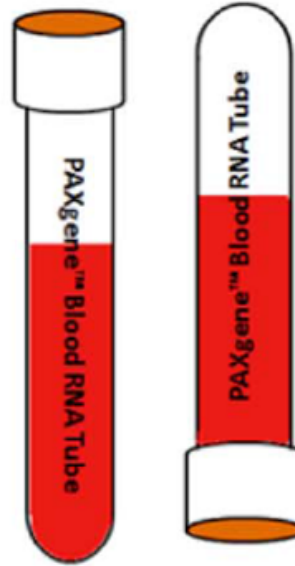
- Store tubes at room temperature.
- Label tubes with pre-printed labels prior to blood draw.

Step Two



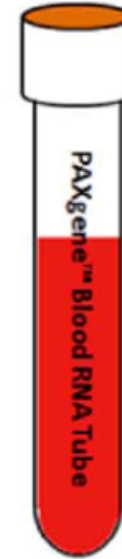
- Collect blood in PAXgene™ tube allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

Step Three



- Immediately after blood draw, invert tubes 8-10 times to mix samples.

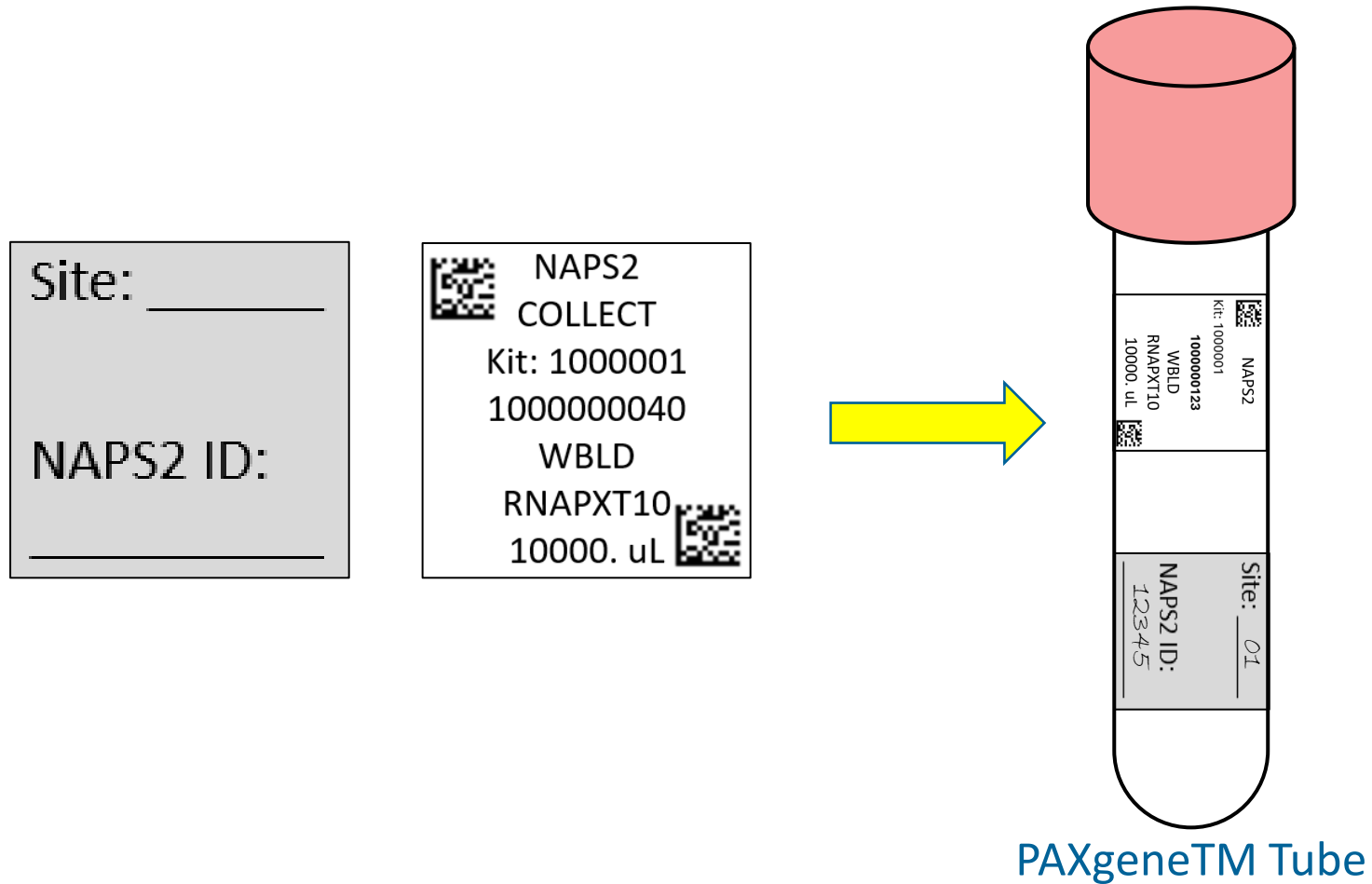
Step Four



- Store tubes at -80°C in a wire rack until shipment.



# RNA PAXgene™ Tube Labeling





# RNA Preparation (2.5ml PAXgene™ Tube)

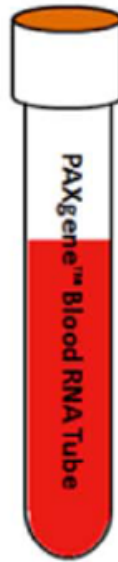


Step One



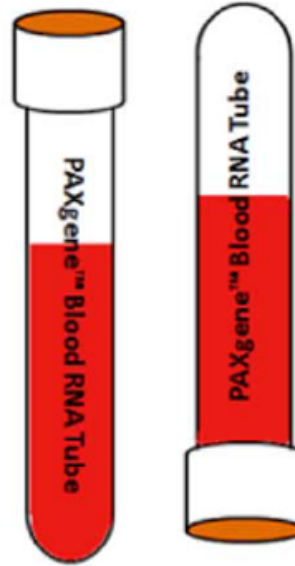
- Store tubes at room temperature.
- Label tubes with pre-printed labels prior to blood draw.

Step Two



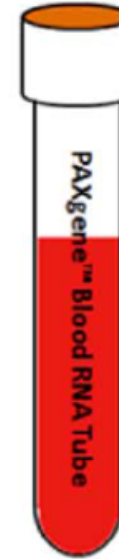
- Collect blood in PAXgene™ tube allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

Step Three



- Immediately after blood draw, invert tubes 8-10 times to mix samples.

Step Four



- Store tubes at -80°C in a wire rack until shipment.





# CSF Collection and Processing

## \*\*\*Important Note\*\*\*

CSF samples should be collected in the morning before breakfast and after an overnight fast when possible. Only water should be permitted past midnight, until lumbar puncture is completed.



# CSF Collection and Processing

## Prior to CSF Collection:

1. Print CSF Sample and Shipment Notification Form.
1. Label all tubes accordingly.



To: Kelley Faber			Email: alzstudy@iu.edu			Phone: 1-800-526-2839		
General Information:								
From: _____			Date: _____ [MM/DD/YYYY]					
Phone: _____			Email: _____					
Tracking #: _____								
NAPS2 Participant Study Information:								
NAPS2 ID: _____			GUID ID: _____					
Sex (circle one): Male Female			Year of Birth: _____					
Select one: <input checked="" type="checkbox"/> Case <input type="checkbox"/> Control								
Visit Information:								
CSF Collected? Yes No			Kit Barcode					
Gauge needle used for LP (circle one): 22G 24 G								
Visit (circle one): Cycle 1 Cycle 2 Cycle 3 Cycle 4 Cycle 5 Cycle 6 Cycle 7 Cycle 8								
Collection Process: Gravity Method Aspiration (If aspiration method is used, it must be documented as a protocol violation)								
CSF Collection:								
1. Date of Collection: _____ [MMDDYYYY]								
2. Time of Collection: 24 hour clock: _____ [HHMM]								
3. Date subject last ate: _____ [MMDDYYYY]								
4. Last time subject ate: 24 hour clock: _____ [HHMM]								
CSF Processing:								
Time Spint Started: 24 hour clock: _____ [HHMM]								
Duration of Centrifuge: _____ minutes								
Temperature of Centrifuge: _____ °C Rate of Centrifuge: _____ xg								
Total Amount of CSF Collected: _____ mL								
Time Aliquoted: _____ [HHMM]								
Number of 0.5 mL CSF aliquots created (green cap): _____ x 0.5mL								
Number of 1.0 mL CSF aliquots created (orange cap): _____ x 1.0mL								
If applicable, volume of residual CSF aliquot (blue cap): _____ mL								
If applicable, specimen number of residual CSF aliquot: _____								
Time Frozen: _____ [HHMM] Storage Temperature of Freezer: _____ °C								
Notes:								

# CSF Draw Labels



## Collection & Aliquot Tube Labels - CSF

	NAPS2 COLLECT Kit: 1000002 1000000120 CSF STERCNT	
---	--	---


1 x 50mL Sterile Container. Use the label with specimen type = CSF and blank volume.

	NAPS2 ALIQUOT Kit: 1000002 1000000121 CSF STERCNT 500.00 uL	
---	---	---



through

	NAPS2 ALIQUOT Kit: 1000002 1000000130 CSF STERCNT 500.00 uL	
---	---	---



10 x Green-Cap Cryovials. Use the 10 labels with:  
Specimen Type = CSF  
Volume = 500 uL

	NAPS2 ALIQUOT Kit: 1000001 1000000131 CSF STERCNT 1000.0 uL	
---	---	--

through

	NAPS2 ALIQUOT Kit: 1000001 1000000156 CSF STERCNT 1000.0 uL	
---	---	--

25 x Orange-Cap Cryovials. Use the 25 labels with the lowest specimen barcode numbers and:  
Specimen Type = CSF  
Volume = 1000 uL

	NAPS2 ALIQUOT Kit: 1000001 1000000157 CSF STERCNT 1000.0 uL	
---	---	---

1 x Blue-Cap Cryovial. Use the label with the highest specimen barcode number and:  
Specimen Type = CSF  
Volume = 1000 uL

Please email or fax the form on or prior to the date of shipment

To: Kelley Faber			Email: alzstudy@iu.edu			Phone: 1-800-526-2839		
<b>General Information:</b>								
From: <u>Coordinator Name</u>			Date: <u>05/08/2024</u> [MM/DD/YYYY]					
Phone: <u>111-111-1111</u>			Email: <u>CoordinatorEmail@email.com</u>					
Tracking #: _____								
<b>NAPS2 Participant Study Information:</b>								
NAPS2 ID: <u>NAPS2-00000</u>			GUID ID: <u>NDAR0000000</u>					
Sex (circle one): Male <input type="checkbox"/> Female <input checked="" type="checkbox"/>			Year of Birth: <u>1900</u>					
Select one: <input checked="" type="checkbox"/> Case <input type="checkbox"/> Control								
<b>Visit Information:</b>								
CSF Collected? Yes <input type="checkbox"/> No <input type="checkbox"/>			Kit Barcode					
Gauge needle used for LP (circle one): <u>22G</u> 24 G								
Visit (circle one): <u>Cycle 1</u> Cycle 2 Cycle 3 Cycle 4 Cycle 5 Cycle 6 Cycle 7 Cycle 8								
Collection Process: <u>Gravity Method</u> Aspiration								
(If aspiration method is used, it must be documented as a protocol violation)								
<b>CSF Collection:</b>								
1. Date of Collection: <u>05/08/2024</u> [MMDDYYYY]								
2. Time of Collection: 24 hour clock: _____ [HHMM]								
3. Date subject last ate: _____ [MMDDYYYY]								
4. Last time subject ate: 24 hour clock: _____ [HHMM]								
<b>CSF Processing:</b>								
Time Spint Started: 24 hour clock: _____ [HHMM]								
Duration of Centrifuge: _____ minutes								
Temperature of Centrifuge: _____ °C			Rate of Centrifuge: _____ xg					
Total Amount of CSF Collected: _____ mL								
Time Aliquoted: _____ [HHMM]								
Number of 0.5 mL CSF aliquots created (green cap): _____ x 0.5mL								
Number of 1.0 mL CSF aliquots created (orange cap): _____ x 1.0mL								
If applicable, volume of residual CSF aliquot (blue cap): _____ mL								
If applicable, specimen number of residual CSF aliquot: _____								
Time Frozen: _____ [HHMM]			Storage Temperature of Freezer: _____ °C					
Notes:								

# CSF Draw Labels


## Collection & Aliquot Tube Labels - CSF




NAPS2  
COLLECT  
Kit: 1000002  
1000000120  
CSF  
STERCNT




1 x 50mL Sterile Container. Use the label with specimen type = CSF and blank volume.




NAPS2  
ALIQUOT  
Kit: 1000002  
1000000121  
CSF  
STERCNT  
500.00 uL



through




NAPS2  
ALIQUOT  
Kit: 1000002  
1000000130  
CSF  
STERCNT  
500.00 uL




10 x Green-Cap Cryovials. Use the 10 labels with:


Specimen Type = CSF  
Volume = 500 uL




NAPS2  
ALIQUOT  
Kit: 1000001  
1000000131  
CSF  
STERCNT  
1000.0 uL



through




NAPS2  
ALIQUOT  
Kit: 1000001  
1000000156  
CSF  
STERCNT  
1000.0 uL




25 x Orange-Cap Cryovials. Use the 25 labels with the lowest specimen barcode numbers and:

Specimen Type = CSF  
Volume = 1000 uL



NAPS2  
ALIQUOT  
Kit: 1000001  
1000000157  
CSF  
STERCNT  
1000.0 uL



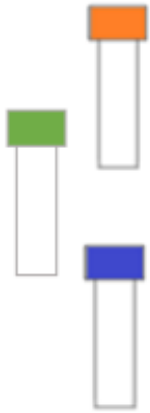
1 x Blue-Cap Cryovial. Use the label with the highest specimen barcode number and:

Specimen Type = CSF  
Volume = 1000 uL

\*There is NOT a provided label for the yellow cap cryovial

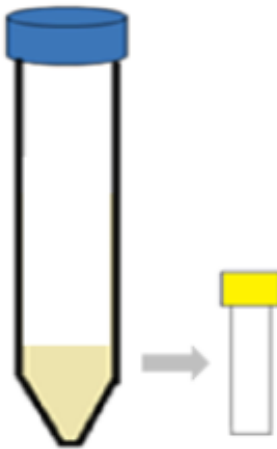
# CSF Preparation (20-30 ml)

## Step One



- Label tubes with pre-printed subject labels prior to collection.
- Pre-chill all cryovials on wet ice.

## Step Two



- Collect initial 1-2 ml (if bloody, collect CSF until cleared of blood) into 50 ml conical tube.
- If not bloody, transfer 1-2 ml into the yellow-cap cryovial.
- Send to local lab for testing.

## Step Three



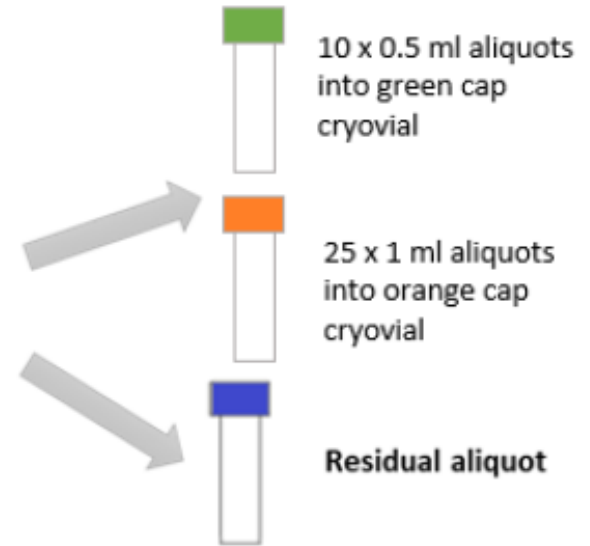
- Collect another 20-30 ml CSF into a new 50 ml sterile conical tube.

## Step Four



- Place sample upright on wet ice until centrifugation begins.
- Within 15 minutes of collection, centrifuge sample at 4°C for 10 minutes at 2000xg.

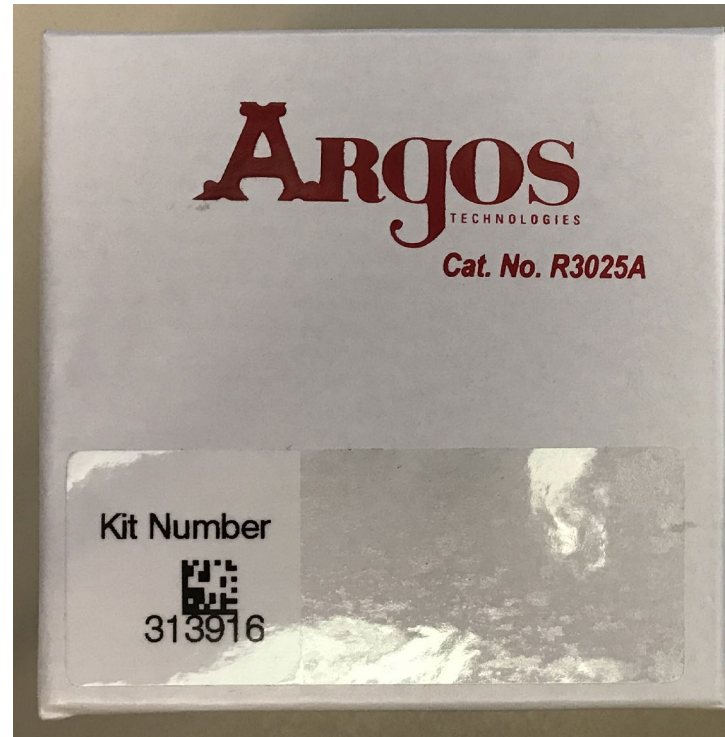
## Step Five



- Aliquot 0.5 ml into 10 x green cryovials.
- Aliquot 1 ml into 25 x orange-cap cryovials.
- If a residual aliquot is created, aliquot into blue-cap cryovial. Document specimen number and volume on CSF Sample Notification Form.
- Store CSF aliquots at -80°C until shipment.



# CSF Collection and Processing



CSF Aliquot tube for  
local lab (label not  
provided)

Please email or fax the form on or prior to the date of shipment

To: Kelley Faber			Email: alzstudy@iu.edu			Phone: 1-800-526-2839		
<b>General Information:</b>								
From: <u>Coordinator Name</u>			Date: <u>05/08/2024</u> [MM/DD/YYYY]					
Phone: <u>111-111-1111</u>			Email: <u>CoordinatorEmail@email.com</u>					
Tracking #: _____								
<b>NAPS2 Participant Study Information:</b>								
NAPS2 ID: <u>NAPS2-00000</u>			GUID ID: <u>NDAR0000000</u>					
Sex (circle one): Male <input type="radio"/> Female <input checked="" type="radio"/>			Year of Birth: <u>1900</u>					
Select one: <input checked="" type="checkbox"/> Case <input type="checkbox"/> Control								
<b>Visit Information:</b>								
CSF Collected? <u>Yes</u> No			Kit Barcode					
Gauge needle used for LP (circle one): <u>22G</u> 24 G								
Visit (circle one): <u>Cycle 1</u> Cycle 2 Cycle 3 Cycle 4 Cycle 5 Cycle 6 Cycle 7 Cycle 8								
Collection Process: <u>Gravity Method</u> Aspiration <small>(If aspiration method is used, it must be documented as a protocol violation)</small>								
<b>CSF Collection:</b>								
1. Date of Collection: <u>05/08/2024</u> [MMDYYYYY]								
2. Time of Collection: 24 hour clock: <u>0917</u> [HHMM]								
3. Date subject last ate: <u>05/07/2024</u> [MMDYYYYY]								
4. Last time subject ate: 24 hour clock: <u>1800</u> [HHMM]								
<b>CSF Processing:</b>								
Time Spint Started: 24 hour clock: <u>0925</u> [HHMM]								
Duration of Centrifuge: <u>10</u> minutes								
Temperature of Centrifuge: <u>4</u> °C Rate of Centrifuge: <u>2000</u> xg								
Total Amount of CSF Collected: <u>30</u> mL								
Time Aliquoted: <u>0935</u> [HHMM]								
Number of 0.5 mL CSF aliquots created (green cap): <u>10</u> x 0.5mL								
Number of 1.0 mL CSF aliquots created (orange cap): <u>25</u> x 1.0mL								
If applicable, volume of residual CSF aliquot (blue cap): _____ mL								
If applicable, specimen number of residual CSF aliquot: _____								
Time Frozen: <u>0945</u> [HHMM] Storage Temperature of Freezer: <u>-80</u> °C								
Notes:								

Leave tracking number blank for now. Fill this out when you are ready to ship the samples to NCRAD.

# Sample Shipping



# Frozen Shipping: Guidelines

- **Ship Monday-Wednesday Only**

- Hold packaged samples in a -80°C freezer until pickup.
- Batch Samples together
  - Batch shipping should be performed every 3 months or as a full shipment of specimens accumulates, whichever is sooner.



**Large Frozen Shipper:**

**\*\* 45 lbs of dry ice pellets**

**AND**

Fits up to 4 x 81-cell cryoboxes **AND** 4 x 2.5ml PAXgene™ tubes.



**Small Frozen Shipper:**

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

**AND**

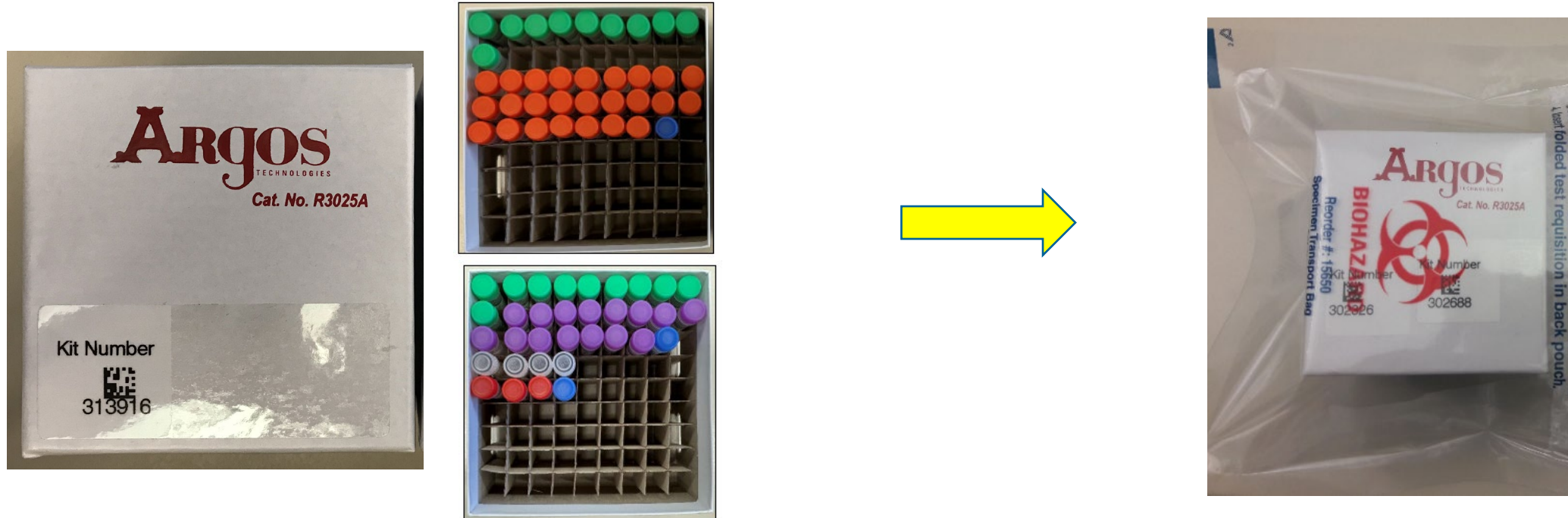
Fits up to 2 x 81-cell cryoboxes **AND** 2 x 2.5ml PAXgene™ tubes.

# Sample Shipment Summary

Sample Type	Collection Tube	Processing/ Aliquoting	Tubes to NCRAD	Ship
Whole blood for isolation of Serum	1 x Plain Red-Top Serum Blood Collection Tube (10ml)	1.5 ml serum aliquot per 2.0 cryovial (red cap). Residual volume placed in 2.0 cryovial with blue cap.	Up to 4	Frozen
Whole blood for isolation of plasma and buffy coat	4 x EDTA (Lavender-Top) Blood Collection Tube (10 ml)	<b>PLASMA:</b> 10 x 0.5ml aliquots in 2.0ml green cap cryovials.  15 x 1.0ml aliquots in 2.0ml purple cap cryovials.  Residual volume placed in 2.0ml cryovial with blue cap.	Up to 26	Frozen
		<b>BUFFY COAT:</b> Aliquot buffy coat from each (4) EDTA tube into its own 2.0ml clear cap cryovial	Up to 4*	Frozen
Whole blood for RNA extraction	1x PAXgene™ Blood Collection Tube (2.5 ml)	N/A	1	Frozen
CSF	Sterile Containers (20-30 ml CSF)	10 x 0.5ml CSF in the first 10 green cap cryovials.  25 x 1.0ml CSF in 2.0 orange cap cryovials.  Residual volume place in 2.0ml cryovial with blue cap.  1 x 1-2ml CSF for local lab placed in 2.0ml yellow cap cryovial.	Up to 36	Frozen

\*Sites may elect to keep 1-2 buffy coats from each visit locally.

# Frozen Shipping: Cryoboxes



Place CSF aliquots in one cryobox and the serum/plasma/buffy coat aliquots in a second cryobox. Place frozen PAXgene™ tube in provided bubble wrap tube sleeve, seal, and place in biohazard bag with the cryobox containing serum/plasma/buffy coat. Seal biohazard bag according to the instructions on the bag. Be sure to adhere a Kit Number Label on the lid of each cryobox.

Place only ONE cryobox per Biohazard bag. PAXgene™ should be placed in the bag with the cryobox containing serum/plasma/buffy coat samples.

# Frozen Shipping: Dry Ice Requirements

- Fully cover the cryoboxes with about 2 inches of dry ice in the provided shipper.



## Large Frozen Shipper:

\*\* 45 lbs of dry ice pellets

AND

Fits up to 4 x 81-cell cryoboxes AND 4 x 2.5ml PAXgene™ tubes.



## Small Frozen Shipper:

\*\*10 lbs of dry ice pellets

AND

Fits up to 2 x 81-cell cryoboxes AND 2 x 2.5ml PAXgene™ tubes.



# Frozen Shipping: Dry Ice Requirements

Class 9 Dry Ice label should not be covered with other stickers and must be completed, or the shipping carrier will reject/return your package!

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.  $\frac{\text{Number}}{\text{pkgs}} \times \frac{\text{wt}}{\text{Kg}}$

**Dry Ice**

**UN 1845**

**9**

Shipper's Name and Address:

Consignee Name and Address:

Net weight of dry ice in **kg**

Your name & address

Repository name & address:

NCRAD  
IU School of Medicine  
351 W. 10<sup>th</sup> St  
TK-342  
Indianapolis, IN 46202

06426 1/01 RRD

NCRAD

# Shipping Frozen Samples

- Schedule FedEx
- *Send Sample and Shipment Notification Forms to IU ahead of shipment*
  - *Email: [alzstudy@iu.edu](mailto:alzstudy@iu.edu)*
  - Please also send notification form to Jennifer McLeland for tracking purposes: [mclelandj@wustl.edu](mailto:mclelandj@wustl.edu)

# Shipping Regulations and Training

## PLEASE NOTE:

- All study personnel responsible for shipping should be certified in biospecimen shipping.
- It is the responsibility of each site to ensure that the appropriate training has been provided and conducted in regards to IATA shipping.

Please see following slides for resources.



# Federal Regulations/Training

- Sites are responsible for ensuring proper training is obtained.
- Current federal and international regulations require anyone directly involved with the shipment of potentially infectious materials and other regulated biological materials (including biological specimens and cultures) **be properly trained on pertinent shipping requirements.**
  - **International Air Transport Association (IATA) Training**

DGI Training Center 800-338-2291 DGItraining.com Provides IATA Certified Air Seminars and online courses	IATA Training Schools North America 1(514)390-6726 Europe, Africa & Middle East 41 (22) 799 2751 Asia, Australia & the Pacific 65 239 7232 <a href="http://www.iata.org">www.iata.org</a> Training schools located in 30 countries
Saf-T Pak Inc. <a href="http://www.saftpak.com">www.saftpak.com</a> Provides dangerous goods training via CD or on-site instruction for North America and Europe	



# UN3373 Biological Substance, Category B Training

- Biological Substance, Category B are specimens being transported for “investigational purposes”
- Recommend: investigator sites document training of category B/dangerous goods
- We recommend establishing a record of your staff’s training and date of instruction
- The training records must be made available upon request by the appropriate national authority
  - Additional information from the Department of Transportation (DOT) can be found on their website <http://hazmat.dot.gov>

# Frozen Shipping: FedEx Airbill

- Airbill must be completed or the shipping carrier will reject/return your package!

Your name,  
address, and  
phone

**FedEx Express Package US Airbill** FedEx Tracking Number **8132 0902 9840** Form ID No. **0200** Sender's Copy

**1 From** Please print and press hard.  
Date \_\_\_\_\_ Sender's FedEx Account Number \_\_\_\_\_  
Sender's Name \_\_\_\_\_ Phone ( ) \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_ Dept./Floor/Suite/Room \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

**2 Your Internal Billing Reference**  
First 24 characters will appear on invoice. OPTIONAL

**3 To**  
Recipient's Name **NCRAD** Phone **(800) 526 2939**  
Company **IV School of Medicine**  
Address **351 W. 10th St. TK-342** Dept./Floor/Suite/Room \_\_\_\_\_  
We cannot deliver to P.O. boxes or P.O. ZIP codes.  
Address \_\_\_\_\_  
Use this line for the HOLD location address or for continuation of your shipping address.  
City **Indianapolis** State **IN** ZIP **46202**

**4 Express Package Service** \*To most locations.  
Next Business Day  
☐ FedEx First Overnight  
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.  
☒ FedEx Priority Overnight  
Next business morning.\* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.  
☐ FedEx Standard Overnight  
Next business afternoon.\* Saturday Delivery NOT available.  
2 or 3 Business Days  
☐ FedEx 2Day A.M.  
Second business morning.\* Saturday Delivery NOT available.  
☐ FedEx 2Day  
Second business afternoon.\* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.  
☐ FedEx Express Saver  
Third business day.\* Saturday Delivery NOT available.

**5 Packaging** \*Declared value limit \$500.  
☐ FedEx Envelope\* ☐ FedEx Pak\* ☐ FedEx Box ☐ FedEx Tube ☐ Other

**6 Special Handling and Delivery Signature Options** Fees may apply. See the FedEx Service Guide.  
☐ Saturday Delivery  
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.  
☐ No Signature Required  
Package may be left without obtaining a signature for delivery.  
☐ Direct Signature  
Someone at recipient's address may sign for delivery.  
☐ Indirect Signature  
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.  
**Does this shipment contain dangerous goods?**  
☐ No ☒ Yes  
As per attached Shipper's Declaration. ☐ Yes  
Shipper's Declaration not required. ☒ Dry Ice  
Dry Ice, § UN 1845 **1** kg  
Restrictions apply for dangerous goods — see the current FedEx Service Guide. ☐ Cargo Aircraft Only

**7 Payment Bill to:**  
Enter FedEx Acct. No. or Credit Card No. below.  
☐ Sender  
Acct. No. in Section 1 will be billed. ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check  
FedEx Acct. No. \_\_\_\_\_ Exp. Date \_\_\_\_\_  
Total Packages \_\_\_\_\_ Total Weight \_\_\_\_\_ Total Declared Value\$ \_\_\_\_\_

**8 Ship it. Track it. Pay for it. All online.**  
Go to [fedex.com](http://fedex.com)

**9** **644**

Our liability is limited to US\$100 unless you declare a higher value. See back for details. By using this airbill you agree to the service conditions on the back of this airbill and in the current FedEx Service Guide, including terms that limit our liability.  
Rev. Date 3/15 • Part #167002 • ©2012–2015 FedEx • PRINTED IN U.S.A. RRDA 00/00

Dangerous  
goods info  
for dry ice  
shipments

Net weight of  
dry ice in kg

FedEx Account  
Number (will  
be prefilled)

NCRAD

- Sample shipments to NCRAD will be paid via the NAPS2 grant at Washington University

# Biological Sample and Shipment Notification Forms

- A copy of the sample form *must* be emailed to NCRAD prior to the date of sample arrival.
- Please include sample forms in all shipments of frozen samples.
- Email: [alzstudy@iu.edu](mailto:alzstudy@iu.edu)

# Biological Sample and Shipment Notification Forms

# Biological Sample and Shipment Notification Form: Blood

To: Kelley Faber		Email: alzstudy@iu.edu	Phone: 1-800-526-2839
<b>General Information:</b>			
From: _____	Date: _____	Kit Barcode	
Phone: _____	Email: _____		
NAPS2 ID: _____	GUID ID: _____		
Sex: M F	Year of Birth: _____		
Visit (circle one): Cycle 1 Cycle 2 Cycle 3 Cycle 4 Cycle 5 Cycle 6 Cycle 7 Cycle 8			
Select one: <input type="checkbox"/> Case <input type="checkbox"/> Control			
Tracking #: _____ CSF Collected? Yes No			
<b>Blood Collection:</b>			
Blood Collected (circle one): Yes No			
1. Date Drawn: _____ [MMDDYYYY]		2. Time of Draw: 24 hour clock: _____ [HHMM]	
3. Date subject last ate: _____ [MMDDYYYY]		4. Last time subject ate: 24 hour clock: _____ [HHMM]	
<b>Blood Processing:</b>			
<u>RNA (PAXgene Tube)</u>			
Total volume of blood drawn into a 1 x 2.5mL PAXgene RNA tube: _____ mL			
Date PAXgene RNA tube placed in -80°C freezer: _____			
Time PAXgene RNA tube placed in -80°C freezer: 24 hour clock: _____ [HHMM]			
<u>Serum (Red Top Tube)</u>			
Time spin started: 24 hour clock: _____ [HHMM]		Duration of centrifuge: _____ minutes	
Temp of centrifuge: _____ °C		Rate of centrifuge: _____ x g	
Original volume drawn (1x10mL Serum tube): _____ mL			
Time aliquoted: _____ [HHMM]		Number of 1.5mL serum aliquots created: _____ x 1.5mL	
If applicable, volume of residual serum aliquot (less than 1.5 mL) (Blue cap): _____ mL			
If applicable, specimen number of residual serum aliquot (Last four digits): _____			
Time aliquots placed in freezer: 24 hour clock: _____ [HHMM]		Storage temperature of freezer: _____ °C	
<u>Plasma &amp; Buffy Coat (EDTA (Lavender Top) Tube - 10mL)</u>			
Time spin started: 24 hour clock: _____ [HHMM]		Duration of centrifuge: _____ minutes	
Temp of centrifuge: _____ °C		Rate of centrifuge: _____ x g	
Original volume drawn (4x10mL EDTA tube): _____			
EDTA #1: _____ mL	EDTA #2: _____ mL	EDTA #3: _____ mL	EDTA #4: _____ mL Total Volume: _____ mL
Time aliquoted: _____ [HHMM]			
<u>Plasma</u>			
Number of 0.5mL plasma aliquots created (green cap): _____ x 0.5mL			
Number of 1.0mL plasma aliquots created (purple cap): _____ x 1.0mL			
If applicable, volume of residual serum aliquot (Blue cap): _____ mL			
If applicable, specimen number of residual plasma aliquot (Last four digits): _____			
Time aliquots placed in freezer: 24 hour clock: _____ [HHMM]			
<u>Buffy Coat</u>			
Buffy Coat aliquot #1 (last four digits): _____		Buffy Coat aliquot #2 (last four digits): _____	
Buffy Coat aliquot #1 Volume: _____ mL		Buffy Coat aliquot #2 Volume: _____ mL	
Buffy Coat aliquot #3 (last four digits): _____		Buffy Coat aliquot #4 (last four digits): _____	
Buffy Coat aliquot #3 Volume: _____ mL		Buffy Coat aliquot #4 Volume: _____ mL	
Time aliquots placed in freezer: 24 hour clock: _____ [HHMM]		Storage temperature of freezer: _____ °C	
Notes: _____			

- Blood Collection for:
  - Whole Blood (RNA)
  - Serum
  - Plasma
  - Buffy Coat
- Send by E-mail prior to shipment, and include a copy in each shipment
- REMINDER: PLEASE make sure this form is filled out completely by the person collecting the samples AND the person processing.



# Biological Sample and Shipment Notification Form: CSF

- Send by E-mail prior to shipment, and include a copy in each shipment
- REMINDER: PLEASE make sure this form is filled out completely by the person collecting the samples AND the person processing.

NAPS CONSORTIUM For REM Sleep Behavior Disorder		CSF Sample and Shipment Notification Form		NCRAD	
Please email or fax the form on or prior to the date of shipment					
To: Kelley Faber		Email: alzstudy@iu.edu		Phone: 1-800-526-2839	
<b>General Information:</b>					
From: _____		Date: _____ [MM/DD/YYYY]			
Phone: _____		Email: _____			
Tracking #: _____					
<b>NAPS2 Participant Study Information:</b>					
NAPS2 ID: _____		GUID ID: _____			
Sex (circle one):    Male        Female		Year of Birth: _____			
Select one: <input type="checkbox"/> Case <input type="checkbox"/> Control					
<b>Visit Information:</b>					
CSF Collected?   Yes    No		Kit Barcode			
Gauge needle used for LP (circle one):    22G        24 G					
Visit (circle one):   Cycle 1    Cycle 2    Cycle 3    Cycle 4    Cycle 5    Cycle 6    Cycle 7    Cycle 8					
Collection Process:   Gravity Method        Aspiration <small>(If aspiration method is used, it must be documented as a protocol violation)</small>					
<b>CSF Collection:</b>					
1. Date of Collection: _____ [MMDDYYYY]					
2. Time of Collection: 24 hour clock: _____ [HHMM]					
3. Date subject last ate: _____ [MMDDYYYY]					
4. Last time subject ate: 24 hour clock: _____ [HHMM]					
<b>CSF Processing:</b>					
Time Spint Started: 24 hour clock: _____ [HHMM]					
Duration of Centrifuge: _____ minutes					
Temperature of Centrifuge: _____ °C        Rate of Centrifuge: _____ xg					
Total Amount of CSF Collected: _____ mL					
Time Aliquoted: _____ [HHMM]					
Number of 0.5 mL CSF aliquots created (green cap): _____ x 0.5mL					
Number of 1.0 mL CSF aliquots created (orange cap): _____ x 1.0mL					
If applicable, volume of residual CSF aliquot (blue cap): _____ mL					
If applicable, specimen number of residual CSF aliquot: _____					
Time Frozen: _____ [HHMM]        Storage Temperature of Freezer: _____ °C					
Notes:					

Please email or fax the form on or prior to the date of shipment

To: Kelley Faber

Email: alzstudy@iu.edu

Phone: 1-800-526-2839

## General Information:

From: Coordinator Name

Date: 05/08/2024 [MM/DD/YYYY]

Phone: 111-111-1111

Email: CoordinatorEmail@email.com

Tracking #: ABCDE123456789

## NAPS2 Participant Study Information:

NAPS2 ID: NAPS2-00000

GUID ID: NDAR0000000

Sex (circle one): Male ☐ Female ☒

Year of Birth: 1900

Select one: ☒ Case ☐ Control

## Visit Information:

CSF Collected? Yes ☒ No ☐

Kit Barcode

Gauge needle used for LP (circle one): 22G ☒ 24 G ☐Visit (circle one): Cycle 1 ☒ Cycle 2 ☐ Cycle 3 ☐ Cycle 4 ☐ Cycle 5 ☐ Cycle 6 ☐ Cycle 7 ☐ Cycle 8 ☐Collection Process: Gravity Method ☒ Aspiration ☐

(If aspiration method is used, it must be documented as a protocol violation)

## CSF Collection:

1. Date of Collection: 05/08/2024 [MMDYYYYY]

2. Time of Collection: 24 hour clock: 0917 [HHMM]

3. Date subject last ate: 05/07/2024 [MMDYYYYY]

4. Last time subject ate: 24 hour clock: 1800 [HHMM]

## CSF Processing:

Time Spint Started: 24 hour clock: 0925 [HHMM]

Duration of Centrifuge: 10 minutes

Temperature of Centrifuge: 4 °C Rate of Centrifuge: 2000 xg

Total Amount of CSF Collected: 30 mL

Time Aliquoted: 0935 [HHMM]

Number of 0.5 mL CSF aliquots created (green cap): 10 x 0.5mL

Number of 1.0 mL CSF aliquots created (orange cap): 25 x 1.0mL

If applicable, volume of residual CSF aliquot (blue cap): mL

If applicable, specimen number of residual CSF aliquot:

Time Frozen: 0945 [HHMM] Storage Temperature of Freezer: -80 °C

Notes:

# NCRAD Website





National Centralized Repository for  
Alzheimer's Disease and Related Dementias

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[ACCESS SAMPLES](#) ▾

[BIOMARKER ANALYSIS](#) ▾

[COORDINATE STUDIES](#) ▾

[CONTACT](#) ▾

A blue-tinted background image showing a complex molecular structure, likely a protein or a large molecule, with various spheres and connecting lines. The text "EMPOWERING RESEARCH WITH RELIABLE AND CONSISTENT SAMPLE SERVICES" is overlaid in white, bold, sans-serif font.

EMPOWERING RESEARCH WITH RELIABLE AND  
CONSISTENT SAMPLE SERVICES

## Study Resources

4RTNI-2  
90+ STUDY  
ABC-DS  
ACAD  
ACE  
ADCFB  
ADNI-3,4  
AGMP  
ALLFTD  
APOE  
BBBSR

## Study Resources (cont.)

BENFOTEAM  
BEYONDD  
CADASIL  
CLARITI  
DIAN  
DMDC  
HALS  
OXICU K76  
HEAD  
LEADS  
MCS

## Study Resources (cont.)

NIA-AD FBS  
**NAPS2**  
PACT  
PATH  
PSDC  
UW RETINAL  
VERI-T  
VIVA-MIND  
WRAP



# NCRAD Website: NAPS2 Active Study Page

<https://ncrad.org/coordinate-studies/naps2>

Training videos, manual of procedures, and sample forms are available for reference on the NAPS2 Active Study Page.

 / [Coordinate Studies](#) / [NAPS2](#)

## NAPS2 ACTIVE STUDY PAGE

Welcome NAPS2 Study staff, coordinators, and PI's.

This section encompasses study specific tools and videos for your reference. If you have any questions, comments, or new ideas please contact NCRAD by [email](#) or phone [1-800-526-2839](#) or directly at [317-278-8413](#).

### SPECIMEN COLLECTION OVERVIEW

	VISIT 1	VISIT 2	VISIT 3	VISIT 4	VISIT 5
Serum	✓	✓	✓	✓	✓
Plasma	✓	✓	✓	✓	✓
Buffy Coat*	✓	✓	✓	✓	✓
RNA	✓	✓	✓	✓	✓
CSF*	✓	✓	✓	✓	✓

\* CSF collection optional after visit 1

**Study Resources**

# NCRAD Website: Friday Blood Draws

<https://ncrad.org/contact/friday-blood-draws>

## WHAT TO DO FOR FRIDAY BLOOD DRAWS

NCRAD is not open for business on Saturday or Sunday; therefore, we ask that no samples be shipped on a Friday. We cannot guarantee the conditions in which the samples will be held by the shipping courier over the weekend. It is important to have plans in place for each type of sample to be held over the weekend prior to shipping. Please refer to the table below for how to handle samples drawn on a Friday.

When possible, please only ship frozen samples on Monday-Wednesday. There is always the potential for an unexpected shipping courier delay and by shipping Monday through Wednesday there should be enough time to receive the samples before the weekend

SAMPLE TYPE	TUBE TYPE	PRODUCT	SHIPMENT METHOD	FRIDAY DRAW INSTRUCTIONS
Whole Blood	Sodium Heparin	PBMC	Ambient	DO NOT DRAW ON FRIDAY. Must be drawn on Monday – Thursday.
Whole Blood	EDTA Tube	DNA Only	Ambient	Do NOT refrigerate. Please keep sample at room temperature until the specimen can be shipped via next day delivery methods the following Monday.
Whole Blood	EDTA Tube	DNA Only	Frozen	Whole blood in EDTA may be frozen in a -80°C freezer within 5 days of collection and shipped frozen on dry ice to NCRAD to remain within the stability window for DNA extraction.
Whole Blood	ACD Solution A Tube	Lymphoblastoid Cell Lines	Ambient	Do NOT refrigerate. Please keep sample at room temperature until the specimen can be shipped via next day delivery methods the following Monday.
Whole Blood	PAXgene™ Tube	RNA	Frozen	The PAXgene™ Tube must be placed on a <b>wire rack</b> and stored in a -80°C freezer. The sample may then be packaged with dry ice pellets and shipped as the study MOP dictates.
Cerebral Spinal Fluid	Polypropylene Aliquot Tubes	CSF	Frozen	CSF must be processed and aliquoted locally the day of collection. Once aliquoted, samples are stored upright in a -80°C freezer until shipment. The aliquots may then be packed with dry ice pellets and shipped as the study MOP dictates.
	Polypropylene			Plasma must be processed and aliquoted locally the day of collection. Once aliquoted, samples are stored upright in a -80°C freezer before shipment. The

## HOLIDAY CLOSURES

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

**Please Note:** between December 24th and January 2nd, Indiana University will be open Monday through Friday for essential operations ONLY and will re-open for normal operations on January 2nd. If at all possible, biological specimens for submission to Indiana University should NOT be collected and shipped to Indiana University after the second week of December. Should it be necessary to ship blood samples for DNA extraction to Indiana University during this period, please contact the Indiana University staff before December 20th by e-mailing [alzstudy@iu.edu](mailto:alzstudy@iu.edu), so that they can arrange to have staff available to process incoming samples.

**Please Note:** Courier services may observe a different set of holidays. Please be sure to verify shipping dates with your courier prior to any holiday.

# NCRAD Website: Holiday Closures

[https://ncrad.org  
/contact/holiday-  
closures](https://ncrad.org/contact/holiday-closures)

# Contact Information

- Questions?

Please contact NCRAD Coordinators at:

- Phone: 1-800-526-2839 or 317-278-1133
- E-mail: [alzstudy@iu.edu](mailto:alzstudy@iu.edu) or [agericks@iu.edu](mailto:agericks@iu.edu)
- Website: [www.ncrad.org](http://www.ncrad.org)