



# Longitudinal Early-onset Alzheimer's Disease Study

in collaboration with

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

### Label 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 317-274-7546
- 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)

# Sample Kits

1. Blood Kit: CI Baseline (BL)
2. Blood Kit: CI M12 – M70 & CN BL – M70
3. Blood Kit: Long Read Sequencing (LRS)
4. CSF Kit: CI BL – M70 & CN BL – M70



National Centralized Repository for  
Alzheimer's Disease and Related Dementias

# Blood Kit: CI Baseline (BL)

Kit comes with the supplies necessary for the collection and processing of:

- Whole blood for isolation of serum
- Whole blood for isolation of plasma and buffy coat
- Whole blood for CLIA genetic testing
- Whole blood for isolation of RNA
- Whole blood for isolation of PBMC

# Blood Kit: CI M12 – M70 & CN BL – M70

Kit comes with the supplies necessary for the collection and processing of:

- Whole blood for isolation of serum
- Whole blood for isolation of plasma and buffy coat
- Whole blood for isolation of RNA
- Whole blood for isolation of PBMC

# Blood Kit: Long Read Sequencing (LRS)

Kit comes with the supplies necessary for the collection and processing of:

- Whole blood for Long Read Sequencing

# CSF Kit: CI BL – M70 & CN BL – M70

Kit comes with the supplies necessary for the collection and processing of:

- Cerebral Spinal Fluid (CSF)

# Specimen Labels



National Centralized Repository for  
Alzheimer's Disease and Related Dementias



# Label Type Summary

1. Kit Number Labels
2. Site and LEADS ID Labels
3. Collection and Aliquot Tube Labels
  - Differ by specimen type

# Kit Number Labels



*Provided by NCRAD in the kits*

- Used to track patient samples and provide quality assurance
- Will be placed on the following locations:
  1. Outside cryobox that houses aliquot tubes during storage and shipment
  2. Outside of the biobag that houses PBMCs during ambient shipment
  3. Blood Sample and Shipment Notification Form
  4. CSF Sample and Shipment Notification Form **(IF COLLECTED)**
- CSF samples will have a different kit number than the blood collection specimens

# Site and LEADS ID Label

**LDS:**

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- Subjects will be identified by their site ID and LEADS ID
- The LEADS ID may only be available shortly before the visit
- Sites will be responsible for handwriting this onto the provided labels
  - Must use fine point permanent marker

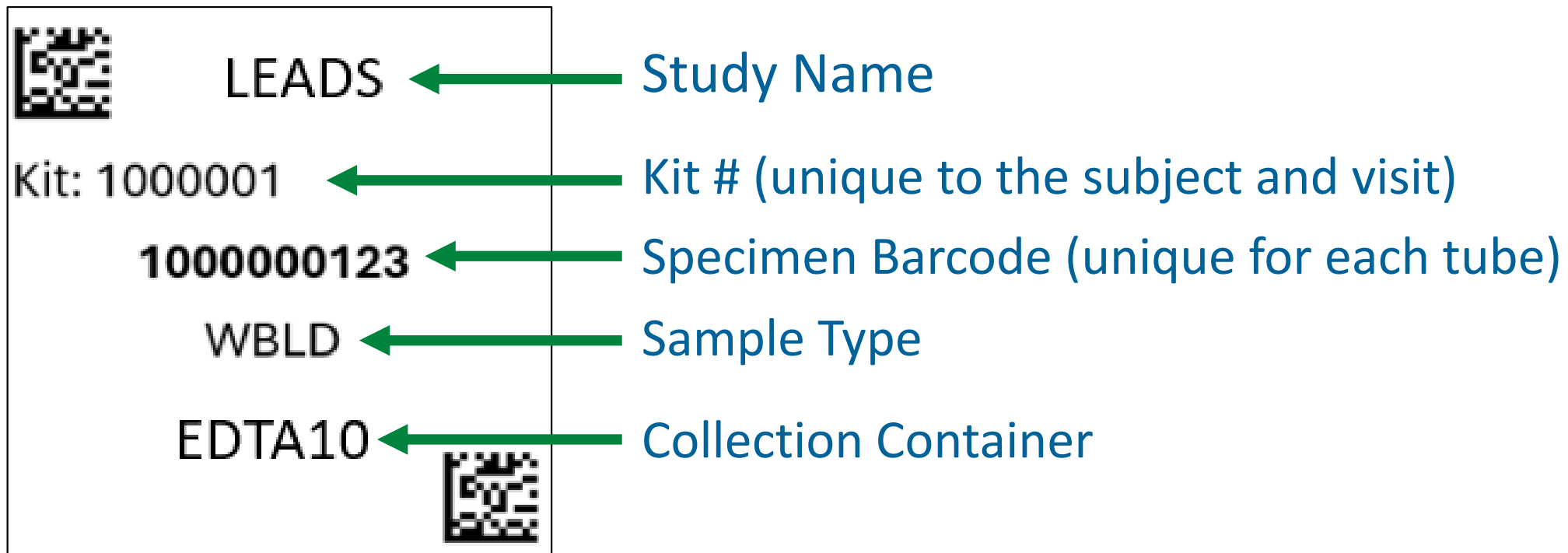
# Site and LEADS ID Label Cont.

**LDS:**

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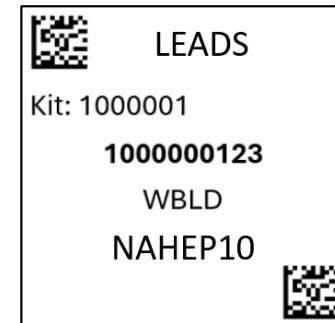
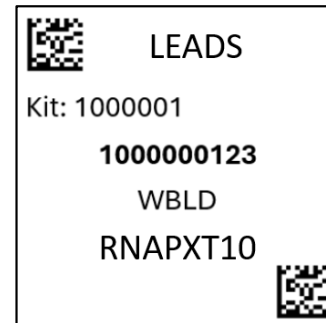
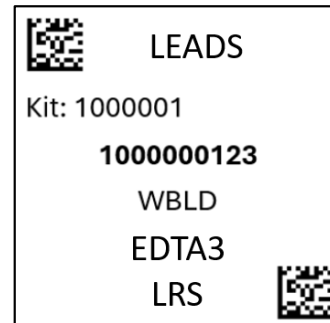
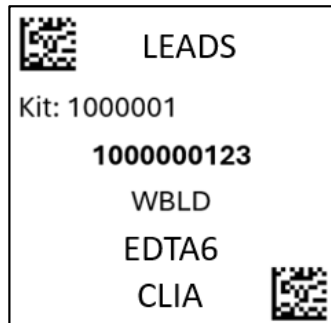
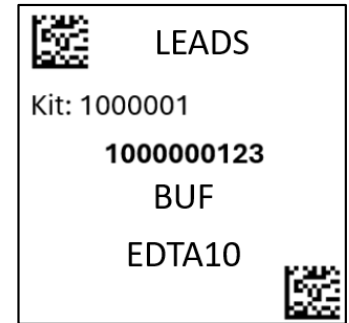
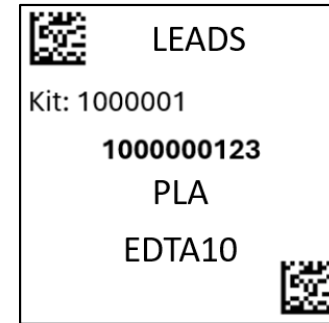
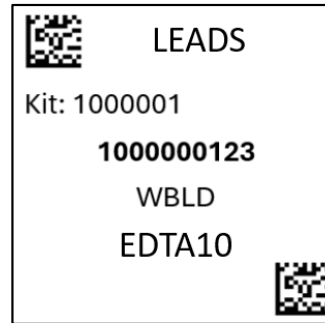
- Write information on label prior to adhering to tube
- Label will be placed on all collection tubes:
  - PAXgene™ Blood Collection Tube (2.5ml) for RNA
  - Plain Red Top Serum Blood Collection Tube (10ml) for Serum
  - Sodium Heparin (Green-Top) Blood Collection Tube (10ml) x 2
  - EDTA (Lavender-Top) Blood Collection Tube (10ml) for DNA and Plasma x 3
  - EDTA (Lavender-Top) Blood Collection Tube ( ml) for CLIA lab testing **\*\*CI Baseline ONLY\*\***
  - EDTA (Lavender-Top) Blood Collection Tube (3ml) for LRS **\*\*collected only once\*\***
- Kits will include one extra label

# Collection and Aliquot Tube Labels



Labels to be placed on ALL collection and aliquot tubes

# Collection and Aliquot Tube Labels



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
EDTA6	6mL EDTA Lavender-Top Tube
EDDTA3	3mL EDTA Lavender-Top Tube
RNAPXT10	10mL RNA PAXGene™ Tube
NAHEP10	10mL Sodium Heparin (NaHep) PBMC Tube
STERCNT	Sterile Container (for CSF)

# Specimen Labels: Blood Collection Tubes

- All Serum, EDTA, and PAXGene™ collection tubes will have two labels:
  - Label 1: Collection Tube Label
  - Label 2: LEADS ID Label



**Label 1:**

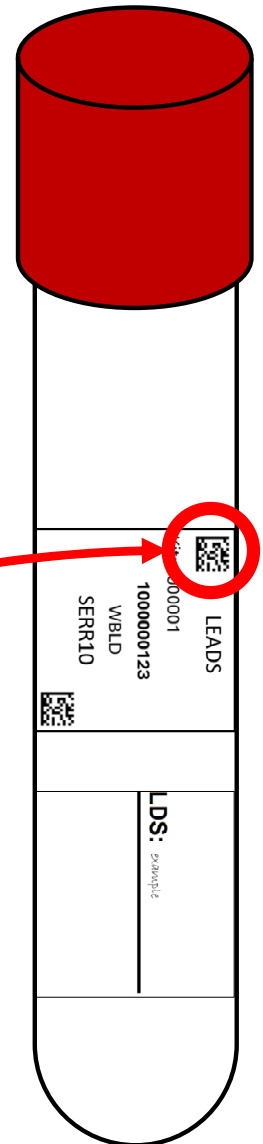
	<b>LEADS</b>
Kit: 1000001	
<b>1000000123</b>	
Sample Type	
Collection Container	
	

**Label 2:**

<b>LDS:</b>
<hr/>

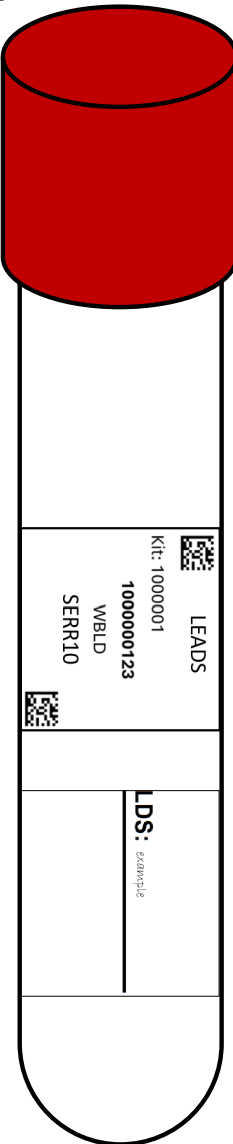
Please ensure the left-hand barcode is near the cap

	<b>LEADS</b>
Kit: 1000001	
<b>1000000123</b>	
WBLD	
SERR10	
	

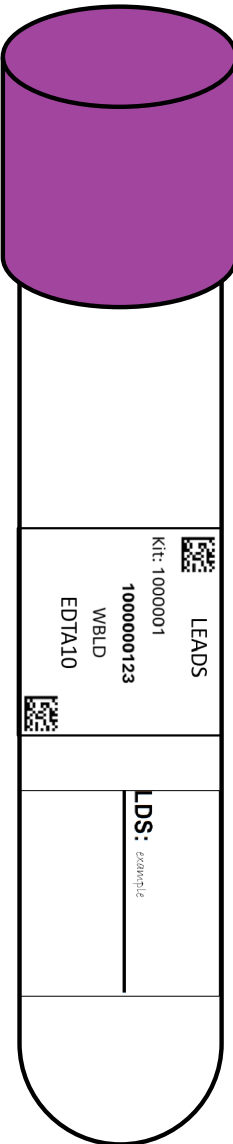




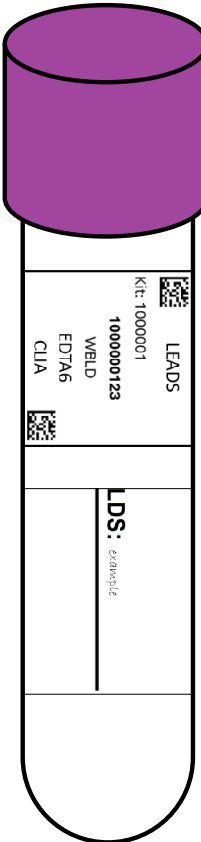
# Specimen Labels: Blood Collection Tubes



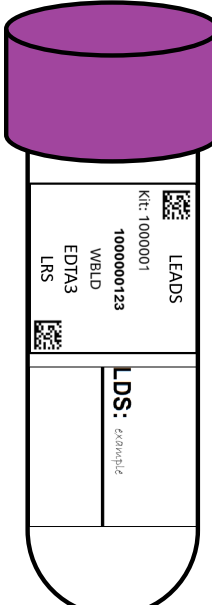
1 x 10mL Serum  
Red-Top Tube



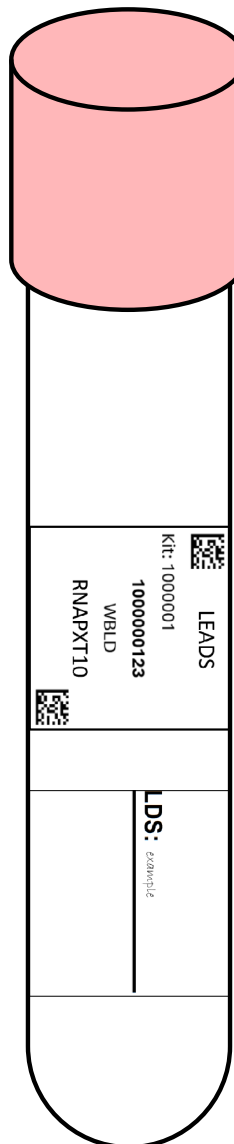
3x 10mL EDTA  
Lavender-Top  
Tubes



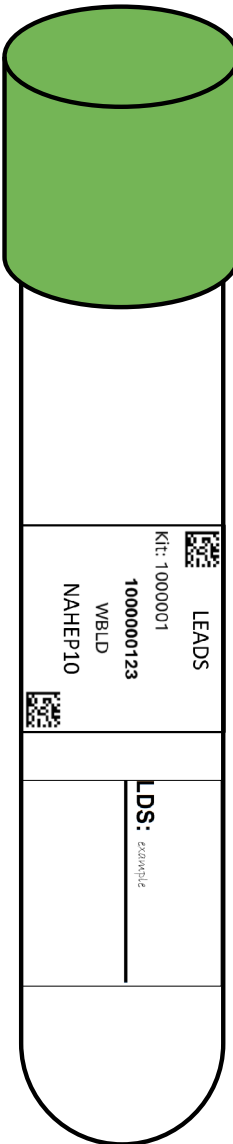
1 x 6mL EDTA  
Lavender-Top  
Tube



1x 3mL EDTA  
Lavender-Top  
Tube



1 x 10mL RNA  
PAXGene  
Tube



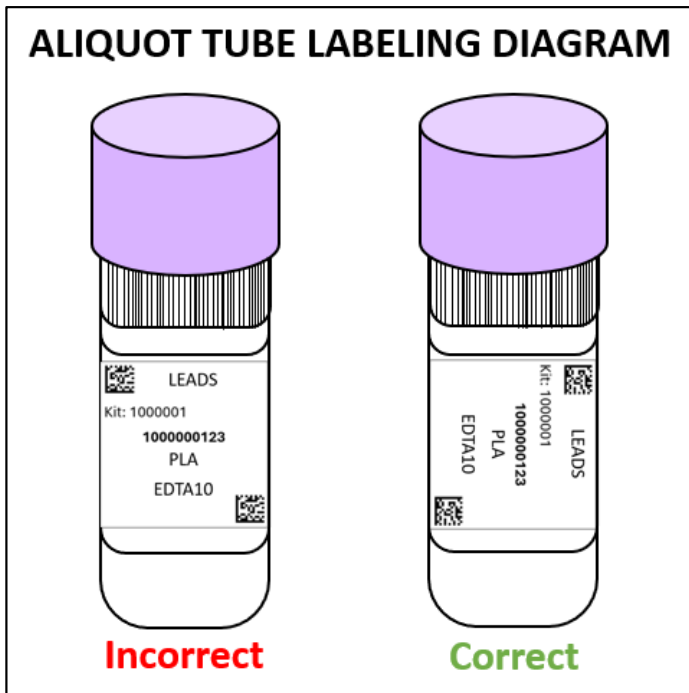
2 x 10mL Sodium  
Heparin (NaHep)  
PBMC Tubes

# Specimen Labels: Aliquot Tubes



Cap Color	Sample Type
Red Cap	Serum
Lavender Cap	Plasma
Clear Cap	Buffy Coat
Green Cap	Whole blood
Blue Cap	Residual (plasma, serum, whole blood or CSF)
Orange Cap	CSF
Yellow Cap	CSF for local lab

- **Aliquot Tubes: 2ml cryovials**
  - Serum, Plasma, Buffy Coat, Whole Blood, and CSF
- **Collection and Aliquot tube label only**
- **Place left-hand barcode near cap**



# Labeling Biologic Samples

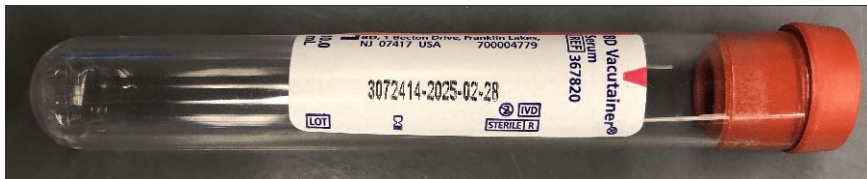
## Please...

- 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.

# Serum Preparation (10ml Red Top Tube)

Prior to blood draw, label all tubes:

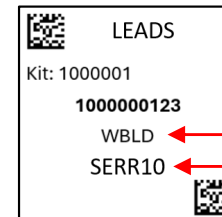
## 1 x 10mL Serum Tube



Label with:

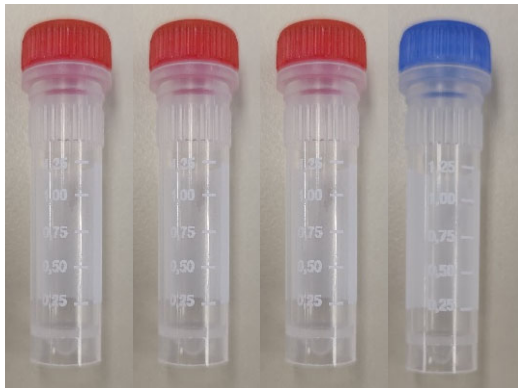
LDS: \_\_\_\_\_

&

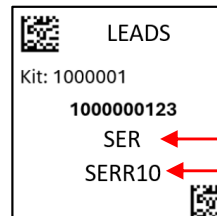


WBLD  
SERR10

## 3 x 2ml Red Cap Cryovials & 1 x 2ml Blue Cap Cryovial



Label with:



SER  
SERR10

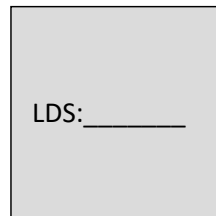
# Plasma and Buffy Coat Preparation (10ml Lavender-Top Tube x 3)

Prior to blood draw, label all tubes:

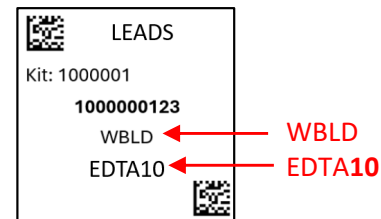
## 3 x 10mL EDTA Tubes



Label with:



&



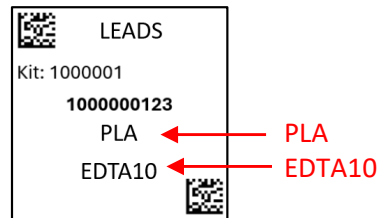
WBLD

EDTA10

## 9 x 2ml Purple Cap Cryovials & 1 x 2ml Blue Cap Cryovial



Label with:



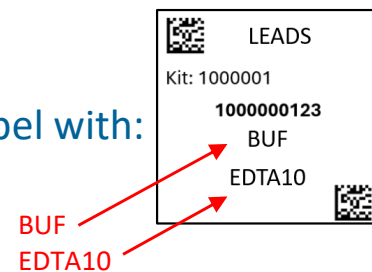
PLA

EDTA10

## 3 x 2ml Clear Cap Cryovials



Label with:



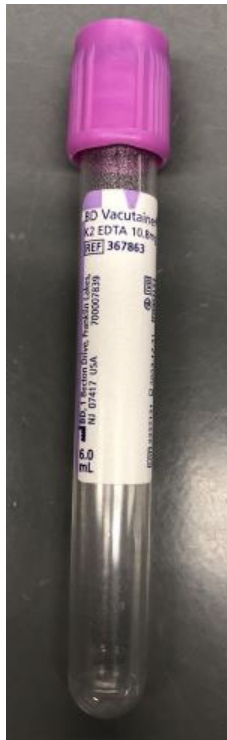
BUF

EDTA10

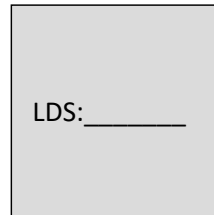
# Whole Blood Preparation (6 mL Lavender-Top Tube)

Prior to blood draw, label all tubes:

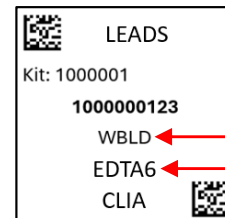
1 x 6mL EDTA Tube



Label with:



&

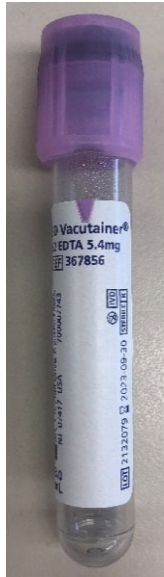


WBLD  
EDTA6

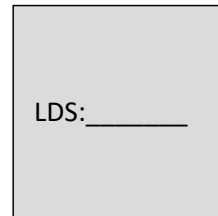
## Whole Blood Collection (1 x 3ml EDTA Purple Top Tube)

Prior to blood draw, label all tubes:

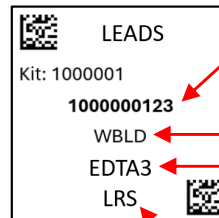
### 1 x 3mL EDTA Tube



Label with:



&



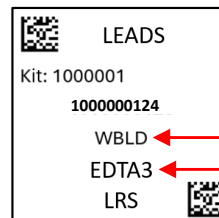
You will receive 4 labels with "WBLD" "EDTA3" and "LRS" on them. Of these 4 labels, use the label with the smallest specimen number for the 3mL EDTA tube

Labels will have an additional line to indicate they are for LRS

### 3 x 2ml Green Cap Cryovials & 1 x 2ml Blue Cap Cryovial



Label with:

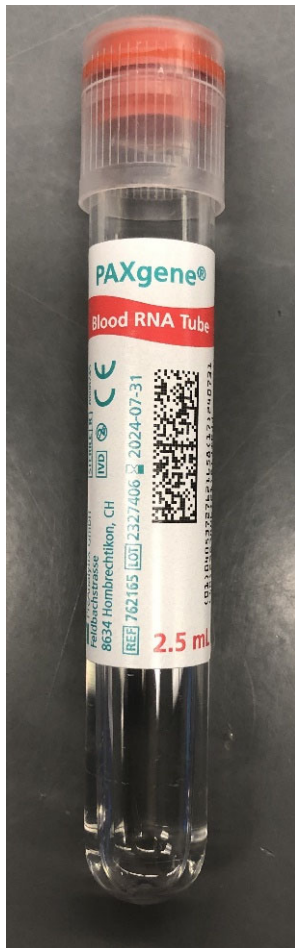


WBLD  
EDTA3

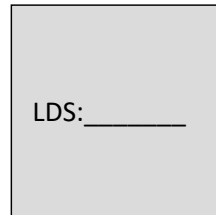
# RNA Preparation (2.5ml PAXgene™ Tube)

Prior to blood draw, label all tubes:

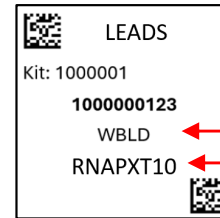
1 x RNA PAXGene™ Tube



Label with:



&



← WBLD

← RNAPXT10



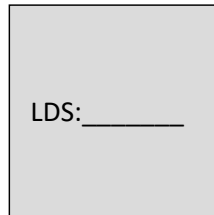
# PBMC Preparation (10ml Sodium Heparin Tube) x 2

Prior to blood draw, label all tubes:

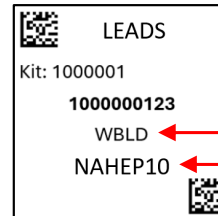
2 x 10mL Sodium Heparin (NaHep) PBMC Tubes



Label with:



&



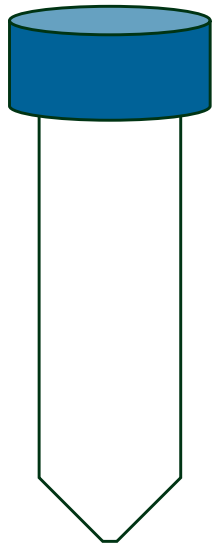
← WBLD

← NAHEP10

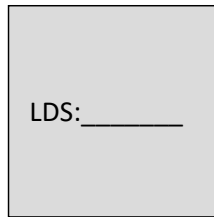
# CSF

Prior to blood draw, label all tubes:

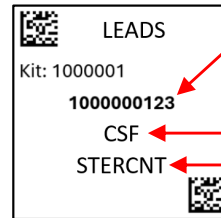
1 x 50ml Sterile Container



Label with:

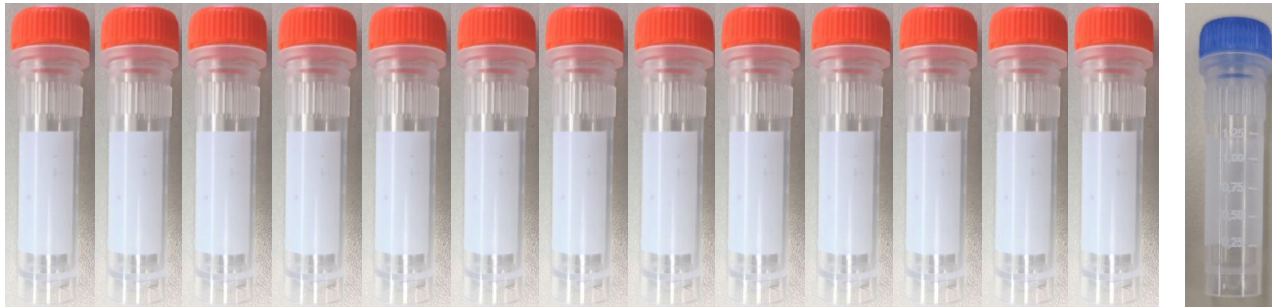


&

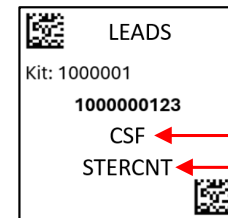


You will receive 15 labels with "CSF" and "STERCNT" on them. Of these 15 labels, use the label with the smallest specimen number for the 50ml conical.

13 x 2ml Orange Cap Cryovials & 1 x 2ml Blue Cap Cryovial



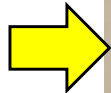
Label with:



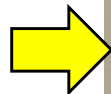
CSF  
STERCNT

# Where else to put labels? Cryobox Lid

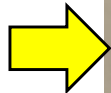
Aliquots from a regular Blood Kit



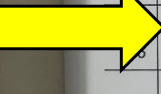
Aliquots from a LRS Blood Kit



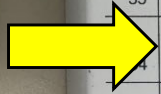
Aliquots from a CSF Kit



Kit Number  
1000001



Kit Number  
1000002



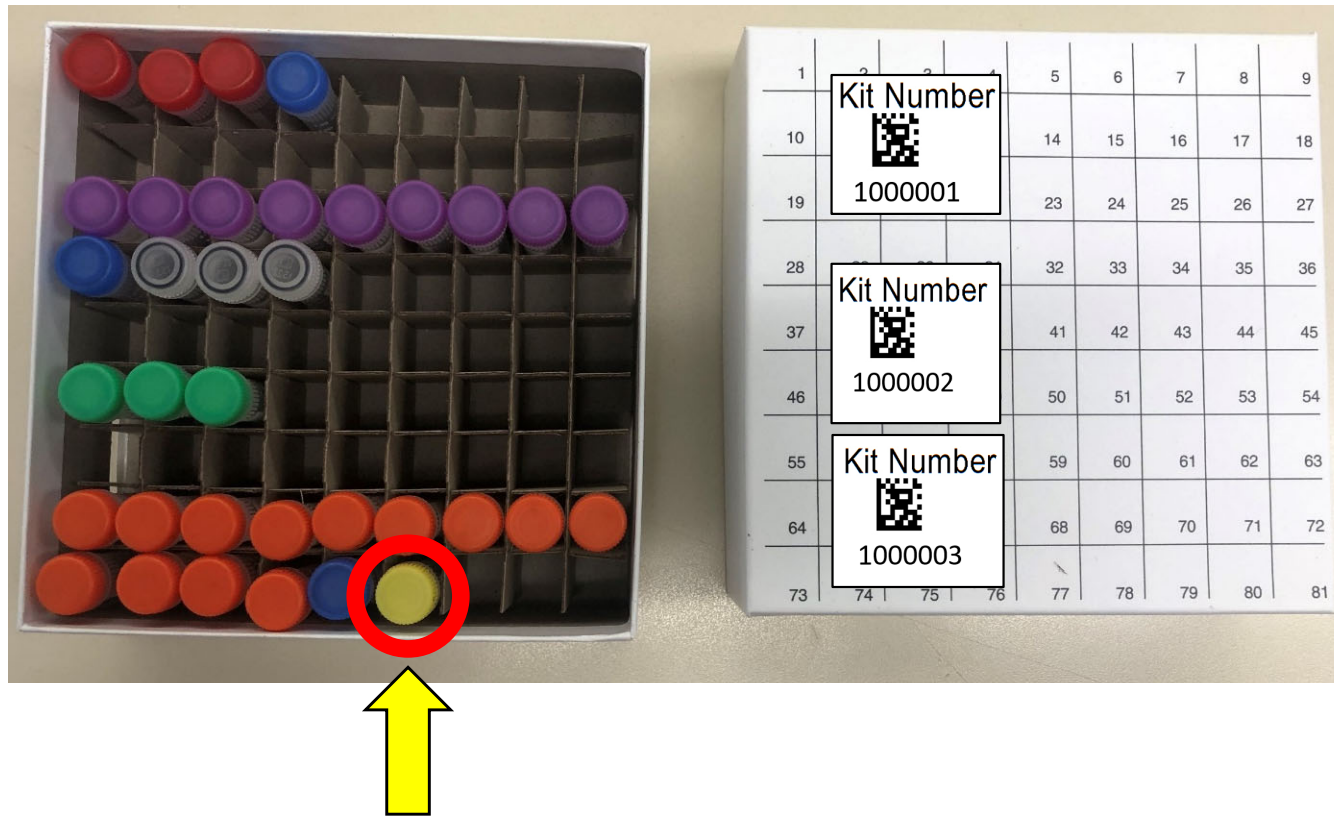
Kit Number  
1000003

Label for local lab provided

A cryobox may have up to three kit number labels on its lid, depending on what samples were collected during the participant's visit.

This is an example of a cryobox with 3 kit number labels, one for each: regular blood kit, LRS blood kit, and CSF kit

# Where else to put labels? Cryobox



**Please note that the yellow-cap cryovial of CSF should NOT be sent back to NCRAD. If used, you should provide it to your local lab.**

**NCRAD does not provide a label for this yellow-cap cryovial**

# Where else to put labels? Ambient Biohazard Bag



Place a Kit Number Label on the outside of the biohazard bag that contains the ambient PBMC samples during shipment



# Where else to put labels? Sample Forms

**LEADS** Longitudinal Early-Onset Alzheimer's Disease Study

Participant ID: LDS [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**NCRAD** National Center for Research on Alzheimer's Disease and Related Disorders

**CSF Sample and Shipment Notification Form**

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

To: Kelley Faber Email: alzstudy@iu.edu FAX: 317-321-2003 Phone: 1-800-526-2839

**General Information:**

From: \_\_\_\_\_ Date: \_\_\_\_\_  
Phone: \_\_\_\_\_ Email: \_\_\_\_\_  
Study: LEADS  CI Participant  CN Participant  
Visit (circle one): **BASELINE** M12 M24 M36 M48  
Sex:  M  F Year of Birth: \_\_\_\_\_  
Tracking #: \_\_\_\_\_ Gauge needle used for LP:  22G  24G

**Kit Number** 1000003

**CSF Collection:**

1. Date of Collection: _____	2. Time of Collection: 24 hour clock: _____ [HHMM]
3. Last time subject ate: Date: _____	4. Last time subject ate: 24 hour clock: _____ [HHMM]
5. Collection process: <input type="checkbox"/> Gravity Method <b>OR</b> <input type="checkbox"/> Aspiration	

**CSF Processing:**

Time spin started: 24 hour clock: _____ [HHMM]	_____ [HHMM]
Duration of centrifuge: _____ minutes	_____ minutes
Temp of centrifuge: _____ °C	Rate of centrifuge: _____ x g
Total amount of CSF collected (mL): _____ mL	_____ mL
Time aliquoted: _____ [HHMM]	_____ [HHMM]
Number of 1.5 mL aliquots created (up to 14 total): <b>(Orange cap cryovials):</b>	_____ x 1.5 mL
If applicable, volume of CSF residual aliquot (less than 1.5 mL): <b>(Blue cap cryovial):</b>	_____ mL
If applicable, specimen number of residual aliquot tube: <b>(Last four digits):</b>	_____
Time frozen: _____ [HHMM]	_____ [HHMM]
Storage temperature of freezer: _____ °C	_____ °C

**Notes:**

**LEADS** Longitudinal Early-Onset Alzheimer's Disease Study

Participant ID: LDS \_\_\_\_\_

**NCRAD** National Center for Research on Alzheimer's Disease and Related Disorders

**Biological Sample and Shipment Notification Form**

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: \_\_\_\_\_ Kit #: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_  
Date: \_\_\_\_\_  
Study: LEADS:  CI Participant  CN Participant  
Visit (circle one): **BASELINE** M12 M24 M36 M48 M60  
Sex:  M  F  
Year of Birth: \_\_\_\_\_  
Tracking #: \_\_\_\_\_

**Kit Number** 1000001

**Kit Number** 1000002

**Blood Collection:**

1. Date Drawn (MM/DD/YYYY): _____	2. Time of Drawn (24 hour clock): _____ [HHMM]
3. Last time subject ate (MM/DD/YYYY): _____	4. Last time subject ate (24 hour clock): _____ [HHMM]

**Blood Processing:**

RNA (PAXgene Tube)	Plasma & Buffy Coat (Lavender Top Tube – 10mL)
Total Volume of blood drawn (1 x 2.5 mL PAXgene RNA tube): _____ mL	Time spin started (24 hour clock): _____ [HHMM]
Time PAXgene RNA tube placed in freezer (24 hour clock): _____ [HHMM]	Duration of centrifuge: _____ minutes
Storage temperature of freezer: _____ °C	Temp of centrifuge: _____ °C
	Rate of centrifuge: _____ x g
	Original volume drawn (3x10 mL EDTA tubes): _____ mL
	EDTA #1: _____ mL EDTA #2: _____ mL EDTA #3: _____ mL
Time spin started (24 hour clock): _____ [HHMM]	Time aliquoted: _____ [HHMM]
Duration of centrifuge: _____ minutes	Number of 1.5 mL plasma aliquots created: _____
Temp of centrifuge: _____ °C	If applicable, volume of residual plasma aliquot (less than 1.5 mL-Blue cap): _____ mL
Rate of centrifuge: _____ x g	If applicable, specimen number of residual plasma aliquot (Last four digits): _____
Original volume drawn (1x10 mL Serum tube): _____ mL	Time aliquots placed in freezer (24 hour clock): _____ [HHMM]
Time aliquoted: _____ [HHMM]	Storage temperature of freezer: _____ °C
Number of 1.5 mL serum aliquots created: _____	Buffy coat aliquot #1 (last four digits): _____
If applicable, volume of residual serum aliquot (less than 1.5 mL-Blue cap): _____ mL	Buffy coat volume #1: _____ mL
If applicable, specimen number of residual serum aliquot (Last four digits): _____	Buffy coat volume #2 (last four digits): _____
Time aliquots placed in freezer (24 hour clock): _____ [HHMM]	Buffy coat volume #2: _____ mL
Storage temperature of freezer: _____ °C	Buffy coat aliquot #3 (last four digits): _____
	Buffy coat volume #3: _____ mL
	Buffy coat aliquot #4 (last four digits): _____
	Buffy coat volume #4: _____ mL
<b>EDTA (Lavender Top Tube – 3mL)</b>	<b>PBMC (NaHeP Green Top Tube)</b>
3mL EDTA tube for LRS collected? <input type="checkbox"/> Yes <input type="checkbox"/> No	Original volume drawn (2x10mL PBMC tube): _____ mL
Original volume drawn (1x3mL EDTA tube): _____ mL	<b>EDTA (Lavender Top Tube – 6mL)</b>
Time aliquoted: _____ [HHMM]	6mL EDTA tube for CLIA testing collected? <input type="checkbox"/> Yes <input type="checkbox"/> No
Whole blood aliquot #1 (last four digits): _____	Original volume drawn (1x6mL EDTA tube): _____ mL
Whole blood volume #1: _____ mL	<b>Notes:</b>
Whole blood aliquot #2 (last four digits): _____	
Whole blood volume #2: _____ mL	
Whole blood aliquot #3 (last four digits): _____	
Whole blood volume #3: _____ mL	
Whole blood aliquot #4 (last four digits): _____	
Whole blood volume #4: _____ mL	