Preparation of Blood Samples for Shipment to Cedars-Sinai

V.3 UPDATED MARCH 11, 2020

Supplies Needed

BD Vacutainer® CPT™ Mononuclear Cell Preparation Tube -Sodium Citrate (Cat # 362761)

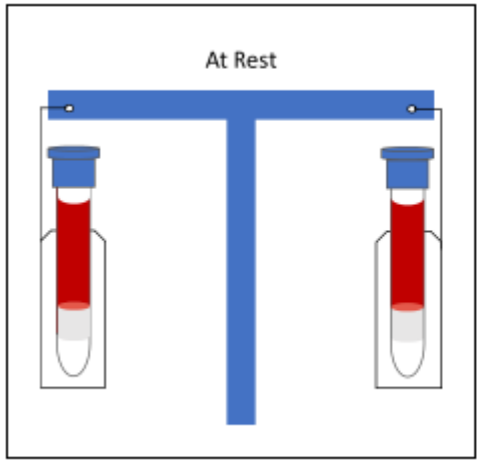
Swing bucket centrifuge

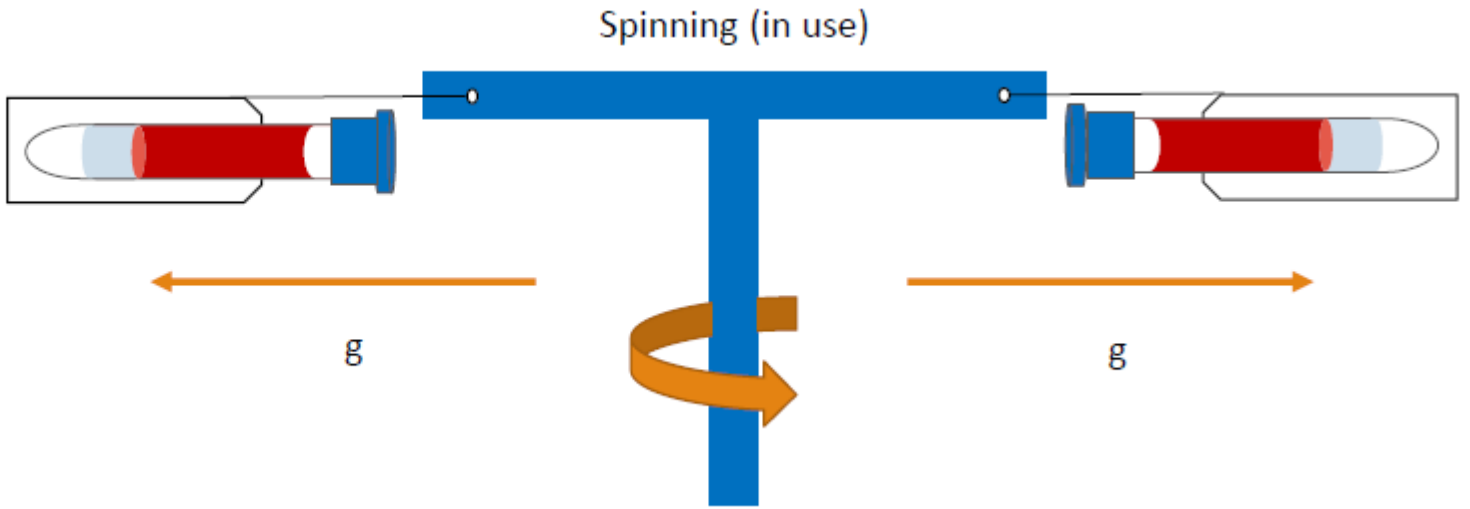
Packing containers

Summary of Steps

Collect	• Collect blood into 3 CPT tubes per patient • Store upright until centrifugation (can invert to mix blood with Sodium Citrate solution)
Centrifuge	• Centrifuge in a swing bucket centrifuge for a 20 minutes at 18-25^{O}C at 1500-1800 RCF (also written as “x g”) • **Samples MUST be centrifuged within 2 hours of collection**
Invert	• Invert tubes to mix the plasma layer with the buffy coat (PBMC layer)
Fill Out Submission Form	• Complete one form per sample • Confirm that all information is correct • Submission form **MUST BE COMPLETED** prior to shipping samples to Cedars-Sinai
Ship	• Prepare samples for shipment • Ship sample via FedEx Priority Overnight – samples must be received within 24 hours • Send an email to ipsccore@cshs.org that you have shipped samples

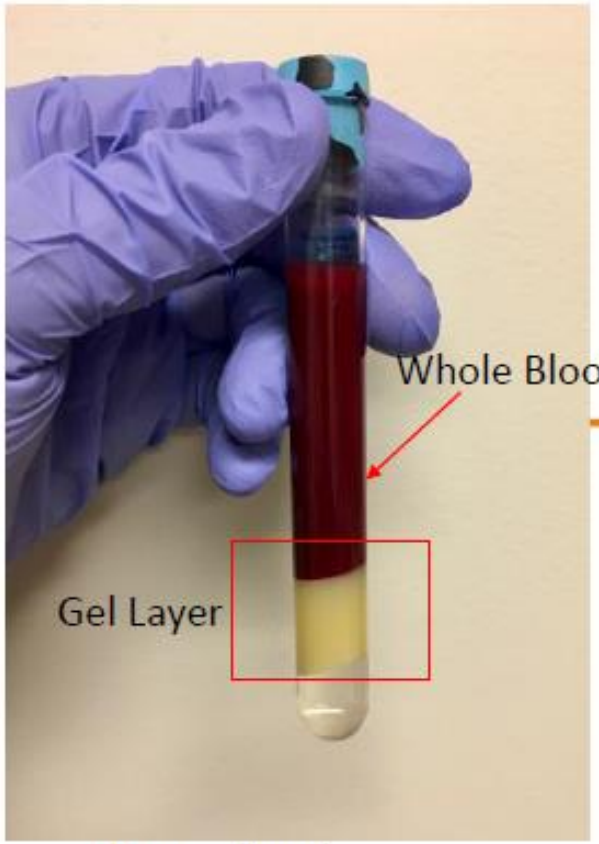
Swing Bucket Centrifuge



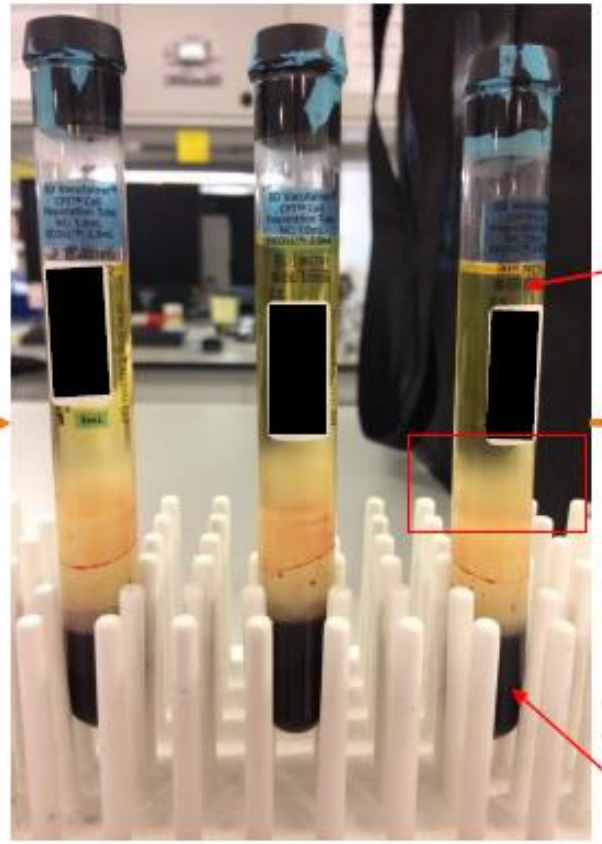


Sample **MUST BE** spun in a swing bucket centrifuge

- Swing bucket centrifuge allows for tubes to be completely horizontal during centrifugation
- Use of a fixed rotor centrifuge will damage the gel layer of the CPT tubes
- If you are unsure if your centrifuge is a swing bucket, please send a photo to ipsccore@cshs.org
- Ensure clearance of the samples tubes from rotor head
  - **Tubes should NOT be hitting the rotor wile spinning. This will cause severe damage to your tubes!**



Post collection

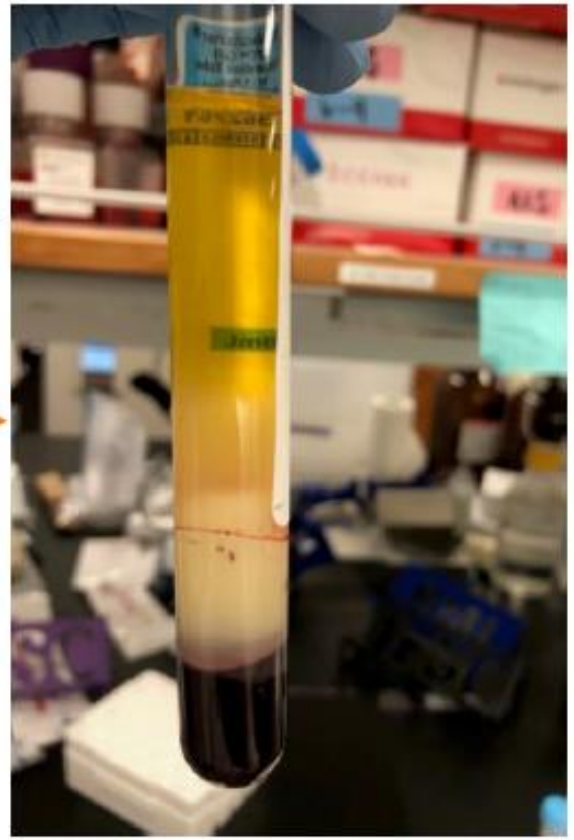


Post spin down

Plasma layer appears clear

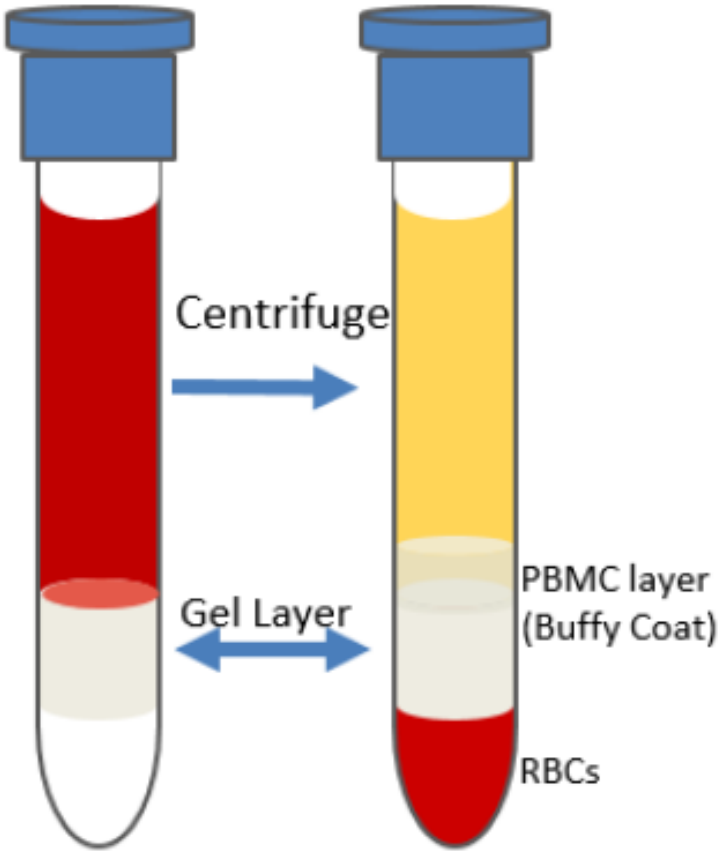
Buffy coat appears white and cloudy and sits on top of gel layer – PBMCs are contained in this area

Red blood cells are collected below the gel layer



Post inversion

Plasma and PBMC layer mixed together creates a cloudy yellow color



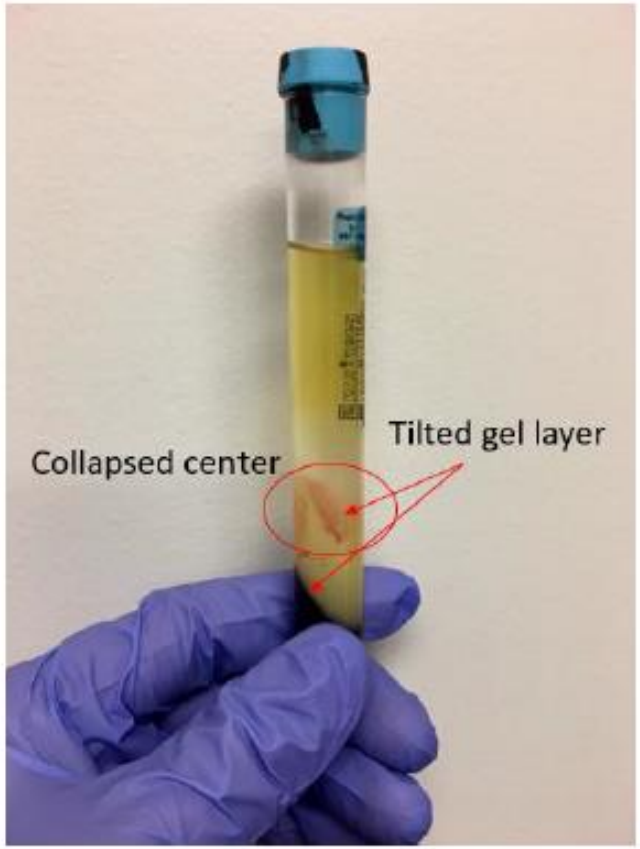
What to look for

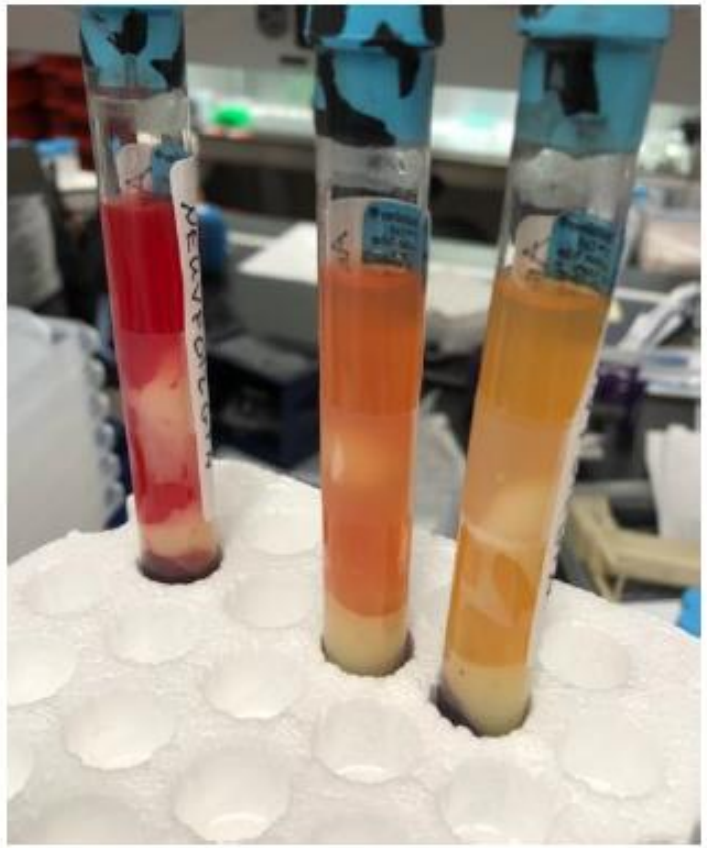
Gel layer will still be intact

Gel layer will remain flat or sit at an angle

RBCs will be completely contained below the gel layer

Buffy coat will be easily visible/identifiable





What your tubes should NOT look like

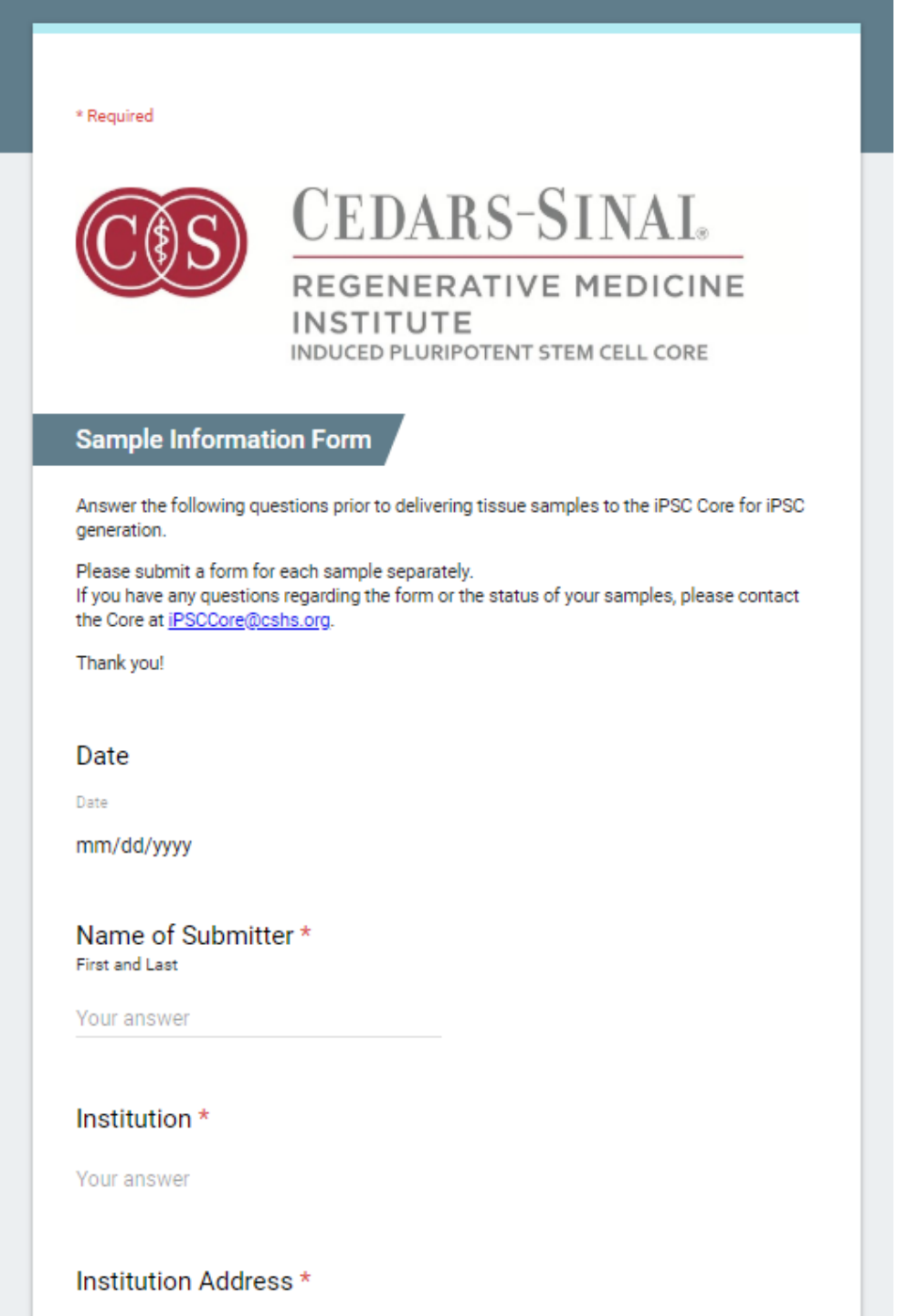
Gel layer should not sit at an extreme angle

Gel layer should not appear collapsed or compromised in any way

Buffy coat should not appear diffused

No red blood should be visible above the gel layer after spin

If any of these attributes are observed, we will not be able to process your samples and the sample will need to be discarded.



* Required

CEDARS-SINAI
REGENERATIVE MEDICINE INSTITUTE
INDUCED PLURIPOTENT STEM CELL CORE

Sample Information Form

Answer the following questions prior to delivering tissue samples to the iPSC Core for iPSC generation.

Please submit a form for each sample separately.
If you have any questions regarding the form or the status of your samples, please contact the Core at iPSCCore@cshs.org.

Thank you!

Date

Date

mm/dd/yyyy

Name of Submitter *
First and Last

Your answer

Institution *

Your answer

Institution Address *

Sample Submission Form

Prior to submitting samples to the Core, you will receive a link to a Sample Submission from for your specific project

Fill out one form per sample

Sections marked with a red star are required fields

Fill in sections as accurately as possible – confirm information is correct before clicking Submit

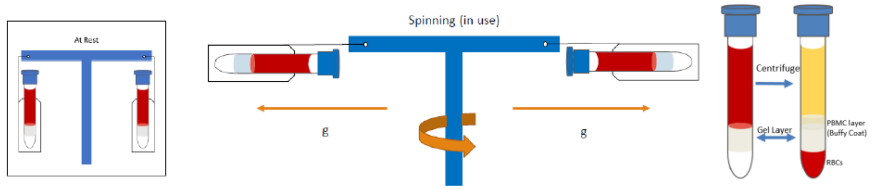
Provide courier and tracking number

Cedars Sinai

Cedars-Sinai Biomanufacturing Center
Induced Pluripotent Stem Cell Core

PERIPHERAL BLOOD COLLECTION AND MINIMAL PROCESSING FOR REPROGRAMMING

SOP Number: SOP-WB-001 **Version: C**



5.5 After centrifugation, mononuclear cells and platelets will be in a whitish layer just under the plasma layer (see Figure above). Resuspend the cells into the plasma by inverting the unopened BD Vacutainer® CPT™ Tube gently 5 to 10 times. This is the preferred method for storing or transporting the separated sample for up to 24 hours after centrifugation.

5.6 After blood is collected the tubes are centrifuged and shipped to us at room temperature (**not frozen**). Use address below.

Induced Pluripotent Stem Cell (iPSC) Core
ATTN: CBC iPSC Core
8687 Melrose Ave,
Suite B227
Los Angeles, CA 90069
Telephone: (310) 423-7074
Email: iPSCCore@cshs.org

Preparing samples for shipment M-Th Collections

FEDEX Shipments
- Select Priority Overnight Shipment

Necessary Materials
- A leak proof primary receptacle
- Absorbent material in sufficient quantity to absorb the entire contents must be placed between the primary receptacle(s) and the secondary packaging.
- A leak proof secondary packaging
- An outer rigid packaging of adequate strength for its capacity, mass and intended use
- One UN3373 label

Conditions
- Ship at room temperature (optional addition of cold pack in summer months)

Ship to address listed on SOP-WB-001
- Send an email to iPSCCore@cshs.org that you have shipped the samples

Prepare samples for shipment Friday Collections

UPS Delivery (SATURDAY DELIVERIES ONLY)

- Select UPS Next Day Air Early

Necessary Materials

- A leak proof primary receptacle
- Absorbent material in sufficient quantity to absorb the entire contents must be placed between the primary receptacle(s) and the secondary packaging.
- A leak proof secondary packaging
- An outer rigid packaging of adequate strength for its capacity, mass and intended use
- One UN3373 label

Conditions

- Ship at room temperature (optional addition of cold pack in summer months)

Ship to : **CBC iPSC Core, 8687 Melrose Ave, Suite B227, Los Angeles, CA 90069**

- Include iPSC Core phone number: 310-423-7074
- Send an email to ipsccore@cshs.org that you have shipped samples

UPS REQUIRES THAT AN ORANGE “SATURDAY DELIVERY’ STICKER BE PLACED ON THE PACKAGE IN ORDER TO BE DELIVERED SATURDAY MORNING – regardless if you have selected Saturday shipment online.