Blood Collection
Blood collection must be performed only by phlebotomy trained personnel.

1. Label the blood tube with the following identifiers:
   - Patient name or patient ID
   - Date of birth
   Identifier information must also be entered on the Test Requisition Form.

2. Collect venous blood (10 ml) into one 10 ml K2-EDTA Vacutainer® lavender top blood collection tube using standard phlebotomy technique.

3. Gently invert tube 10 times immediately after blood collection.

4. Record date and time of blood draw on the Test Requisition Form.

Preparation of EDTA Plasma
Time between blood collection and plasma preparation must be less than 4 hours.

1. Label 15 ml centrifuge tube and two cryogenic vials with the following identifiers:
   - Patient name or patient ID
   - Date of birth

2. Centrifuge blood tube at room temperature (15°C to 25°C) for 10 min at 1600 (±150) g and record plasma processing start time on the Test Requisition Form.
   
   **NOTE:** If available ensure that “soft ramp” function is switched on in order to prevent disruption of the cell layer.
   
   **NOTE:** Subsequent plasma processing steps must be carried out as quickly as possible without pause between individual steps.

3. Transfer plasma (supernatant) to one fresh 15 ml centrifuge tube without disturbing the leukocyte layer using a disposable serological pipette or disposable bulb pipette.
   
   **NOTE:** Aspirate ~5 mm above the leukocyte layer to reduce contamination of the plasma with cells.

4. Centrifuge the plasma in the 15 ml centrifuge tube at room temperature (15°C to 25°C) for 10 min at 3000 (±150) g to remove any residual intact blood cells carried over from the first centrifugation step.

5. Transfer 2 ml plasma aliquots to pre-labeled cryogenic vials using a disposable serological pipette or disposable bulb pipette and gently mix the plasma transferred to each cryogenic vial using the same pipette.
   
   **NOTE:** Leave a residual volume of approximately 0.3 ml (~7mm) on the bottom of the previous 15 ml centrifuge tube to avoid contaminating the plasma with cells.

6. Record total plasma volume (~4 ml of plasma per 10 ml of blood) on the Test Requisition Form.

7. Immediately freeze plasma upright at ~70°C or colder. It is also acceptable to freeze and store plasma at ~20°C for up to two weeks.
Packaging of EDTA Plasma Samples

Use dry ice to pack and ship the plasma samples. Initiate packaging shortly in advance of pickup to prevent loss of dry ice. Label outermost container with hazard class 9 UN1845 and UN3373 Biological Substance Category B stickers.

1. Use the provided Styrofoam box and outer cardboard box for packaging samples.
2. Use approximately 10 pounds (4.5 kg) of dry ice per 24 hours shipping time.
3. Add a layer of dry ice to the Styrofoam shipping box (approximately 1/3 of the total dry ice amount).
4. Protect the cryogenic vials containing frozen plasma inside provided bubble bag with absorbent material. Then put into provided biohazard specimen bag and place on top of the dry ice layer.
5. Add a second layer of dry ice on top of the samples (approximately 2/3 of the total dry ice amount) and fill the Styrofoam box with as much dry ice as possible.
6. Close the Styrofoam box and place it inside the corrugated cardboard box. Ensure that the Styrofoam box is not sealed to be airtight, allowing gases to vent.
7. Put completed Test Requisition Form into provided ziplock bag and place on top of the Styrofoam box.
8. Seal the corrugated cardboard box using wide sealing tape.
9. Label vertical side of the outer cardboard box with UN1845 and UN3373 stickers.
10. Record the net weight of dry ice in kilograms (1 kg = 2 lb) as well as shipper’s and recipient (consignee) name and address on the UN1845 sticker.

Shipping of EDTA Plasma Samples

Ship plasma samples in dry ice using FedEx priority overnight service to Sysmex Inostics (address provided on the FedEx US airbill). Payment is billed to Sysmex Inostics FedEx account.

1. Schedule shipment such that it will not arrive during a weekend or holiday period. Ideally, ship Monday through Wednesday.
2. Complete the following fields on the provided FedEx US airbill: full name, address and telephone number of sender, net weight of dry ice in kilograms, and total package weight in pounds.
3. Affix provided FedEx US airbill to the outermost shipping box.
4. Call FedEx at 1-800-GO-FEDEX (1-800-463-3339) to schedule package pickup.
5. Fill out shipment alert form and send to Sysmex Inostics, Inc. via fax (1-443-455-1636) or email (lab@sysmex-inostics.com).

Any questions? Call 1-855-BEAM-DNA (232-6362) and ask for an Account Manager in your area.

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