

Specimen Processing

Plasma

- Draw a sufficient amount of blood with the indicated anticoagulant to yield necessary plasma volume.
- Gently mix the blood collection tube by inverting 8 to 10 times immediately after collection. Avoid hemolysis of the specimen during collection and mixing.
- If required, separate plasma from cells by centrifuging within 20-30 minutes of collection.
- Do not refrigerate the sample until the plasma is separated from the cells.

Platelet- Poor Plasma (Double-spun plasma)

- Draw a blue top. Tube must be filled to the top of the label mark in order to achieve the proper blood to anticoagulant ratio.
- Mix well by inverting the tube 8 to 10 times immediately after collection.
- Centrifuge promptly for 15 minutes. Using a plastic pipette, transfer the plasma from the blue top tube to a plastic aliquot tube, taking care not to disturb the platelet layer that lies on top of the red cells. Leave a small amount of plasma in the collection tube to be sure you do not pipette any platelets with the plasma.
- Cap and centrifuge the aliquoted plasma sample for another 15 minutes. While the plasma is spinning, label another plastic aliquot, indicating “platelet-poor” or “double-spun” on the label.
- When the second spin is complete, transfer the top 90% of the plasma from the first aliquot tube into the second aliquot tube, taking care not to disturb any platelets that remain in the bottom of the first tube. Discard the first tube and promptly freeze the platelet-poor plasma.

Serum

- Draw a sufficient amount of blood to yield the necessary serum volume
- Invert the tube 8 to 10 times to activate clotting. For clot activation to occur, tubes must be mixed well.
- Allow blood to clot at room temperature for 30 minutes.
- Serum specimens should be centrifuged within an hour of collection.
- Do not refrigerate the sample until the specimen is separated from the cells.

Blood specimens – Whole Blood

- Draw a sufficient amount of blood.
- Gently mix the blood collection tube by inverting 8 to 10 times immediately after collection.
- Tubes for whole blood are NOT to be centrifuged and separated.

Fasting specimen

- Overnight fasting is required for most fasting specimens
- Some tests, particularly lipids, triglycerides and lipoproteins require a 10-12 hour fast prior to specimen collection.
- Drinking water, black coffee or tea does not alter fasting specimen acceptability.

Centrifugation

- Centrifugation should be performed at 1000-1300 g for 10 minutes.
- Tubes of blood, serum and plasma are to be kept closed at all times to prevent possible exogenous contamination, evaporation, concentration changes or possible spillage or aerosols.