



1.0 Purpose

This document describes the process for the collection of human serum from whole blood.

2.0 Scope

These guidelines apply to personnel intending to preserve serum biobanking studies

3.0 Requirements:

3.1. Equipment:

3.1.1 Centrifuge with swinging bucket rotor

3.1.2 -80°C Freezer

3.1.3 Biosafety Cabinet Hood

3.1.4 Pipette Aid

3.2. Materials:

3.2.1 Cryovials (Nalgene/Nunc #368632 for ITN labs)

3.2.2 15ml and 50ml Sterile, Polypropylene, Conical, Centrifuge Tubes

3.2.3 Sterile pipets

3.2.4 Sterile cryovials

4.0 Method:

4.1 Filled red top blood collection tubes should sit uprights after the blood is drawn at room temperature for a minimum of 30 to a maximum of 60 minutes to allow the clot to form. (Note: the red top tubes do not need to be full.) These tubes, without additives allow the red blood cells to form a clot that includes white blood cells, platelets etc.

4.2 Centrifuge the blood sample at the end of the clotting time (30-60 minutes) in a horizontal rotor for 20 minutes at 1300g at room temperature. If the blood is not centrifuged immediately after the clotting time, the tubes should be refrigerated for no longer than 4 hours.

4.3 Use pipette to transfer the serum into labeled cryovials. Aliquot 100-250µl serum into cryovials. This process should be completed within 1 hour of centrifugation. (Note: Be very careful not to

pick up red blood cells when aliquoting. This can be done by keeping the pipet above the red blood cell layer and leaving a small amount of serum in the tube).

4.4 Place all aliquots upright in a specimen box or rack in -80°C or colder freezer. All specimens should remain at -80°C or colder.

Record

1. Hemolysis of the serum occurred
2. Date and time of blood collection
3. Number and volume of aliquots prepared
4. Date and time into -80°C
5. Date and time of shipping
6. Any freeze-thaw that occurs with a sample for any reason
7. Any variations or deviations from the SOP, problems, or issues