Separation of serum

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Serum clear yellow fluid includes all proteins not used in blood clotting (coagulation) and all the electrolytes, antibodies, antigens, hormones, & any exogenous substances (e.g., drugs and microorganisms).

*** Preparation of serum sample from whole blood**

Procedure :

1. Label the tubes, including the unique patient identification number, sex & age.

2. Place a tourniquet above the venepuncture site, disinfect the venepuncture site with **70% isopropyl alcohol** (an alcohol swab) or **10% polyvidone iodine** palpate and locate the vein.

3. Withdraw 3–5 ml, applied the collect blood by venesection and allow to clot in a glass container without anticoagulant.

4. Once the clot has formed, separate the serum from the clotted cells by centrifugation at **(1000 rpm)** for **15** min at 4°C., or directly centrifugated at least **5** minutes at **(3000 rpm)** .

5. Save the serum (straw-coloured supernatant) and discard the cell debris, transfer to a suitable container, then proceed to isolation of the immunoglobulins.

Storing of serum :

- Blood serum samples should be frozen at -70 °C for PCR
- At -20 °C or lower for antibody determination but they can be stored at +4 °C for approximately one week.
