

Blood Chemistry 血清生化分析

1. Purpose

- 1.1 The purpose of blood chemistry is to analyze the substrates, enzymes, hormones, etc in plasma or serum and their use in the diagnosis and monitoring of disease.

2. Safety Requirements

- 2.1 General laboratory procedures should be followed.

3. Associated Documents

- 3.1 Mini Centrifuge
- 3.2 Vortex Mixer

4. Notes

- 4.1 Wear protective gloves while collecting blood sample to avoid contacting with pathological microbes.
- 4.2 Sufficient amount of plasma or serum required at least 30 μ l to analyze 1 item.
- 4.3 Deliver the plasma or serum within 4 hours after collection if possible and seal the sample at low temperature (-20°C) and deliver to TMC as soon as possible.
- 4.4 Do not provide plasma or serum sample with hemolysis.
- 4.5 Centrifuge whole blood sample at 3000 rpm for 15 minutes.
- 4.6 Do not expose plasma or serum sample to sunlight directly.

5. Quality Control

- 5.1 One QC card is packed with each box of slides which is used to compensate the variations between lots of slides and ensure uniform performance.
- 5.2 Annual QC of FUJI DRI-CHEM Clinical Chemistry Analyzer FDC 3500 by using QP-L and OP-H provided by FUJI to ensure all the detected range fall within the expected range

6. Equipment

- 6.1 FUJI DRI-CHEM Clinical Chemistry Analyzer FDC 3500
- 6.2 FUJI DRI-CHEM slides

7. Supplies

- 7.1 Serum (at least 40 μ L to measure one item)
- 7.2 Glove
- 7.3 Paper towel
- 7.4 Wiper
- 7.5 1.5 mL eppendorf
- 7.6 70% alcohol

8. Procedures

- 8.1 Allow whole blood to clot at room temperature for 20-30 minutes but not longer than 3 hours (Avoid hemolysis)
- 8.2 Centrifuge whole blood at 3000rpm for 15 minutes at 4°C.
- 8.3 Transfer the supernatant to a new 1.5 ml eppendorf and stored serum at -20°C for later analysis. Be careful of transferring to avoid disturbing or pipetting the

bottom layer of red cells.

8.4 Thaw the sample for the day of analysis (back to room temperature)

8.5 Observe the appearance and status of plasma or serum

8.6 Turn on FUJI DRI-CHEM 3500

8.7 Swipe QC card of different items with different lots and allow the slides to come to room temperature

8.8 Drop 10 μ L to one slide and allow the reaction to take place

8.9 Result obtained

8.10 Turn off FUJI DRI-CHEM 3500

