Serum Biochemical Indexes Detection

Honghao Zhao, Jasmine Chong, Rong Tang, Li Li, Jianguo Xia, Dapeng Li

1College of Fisheries, Hubei Provincial Engineering Laboratory for Pond Aquaculture, National Demonstration Center for Experimental Aquaculture Education, Huazhong Agricultural University, Wuhan 430070, China;
2Institute of Parasitology, and Department of Animal Science, McGill University, Saint-Anne-de-Bellevue, QC H9X 3V9, Canada

ABSTRACT

This protocol is widely used in serum biochemical indexes detection, it provides an rapid and reliable technique for obtaining relative concentrations of multiple blood biochemical indices simultaneously.

BEFORE START INSTRUCTIONS

All the standard samples of every index are kept at 4 °C.
Blood Samples Collection

1 Blood samples (180 - 200 mL per tail) from 10 Ctenopharyngodon idellus per each group were taken from caudal vein without an anti-coagulating substance by injector puncture.

Preparation for Serum samples

2 The blood samples were placed at room temperature for 30 minutes, then centrifuged at 3000 g for 30 minutes at room temperature.

Storage of samples

3 The separated serum was stored at -80 °C until the serum biochemical indexes detection and analysis.

Serum Samples Detection

4 The lactate dehydrogenase, glutamic-oxalacetic tansaminase, glutamic-pyruvic transaminase, alkaline phosphatase, total cholesterol, high density cholesterol, glucose, albumin, total protein and triglycerides were measured by automatic biochemistry analyzer (Hitachi 7020, Hitachi High Technologies, Inc., Ibaraki, Japan).

The used test Kit

5 Test kits (the standard samples of serum biochemical indexes) were purchased from the Nanjing Jiancheng Biochemical Corporation (Nanjing Jiancheng Biochemical Corporation, Nanjing, China), and the entire procedure was performed in accordance with the kit instructions.