

# himac APPLICATION

No. 69 April 1997

Subject Separation of lipoprotein and electrophoresis

Model High performance preparative ultracentrifuge CP100 $\alpha$

Electrophoresis of human serum lipoprotein separated by ultracentrifuge

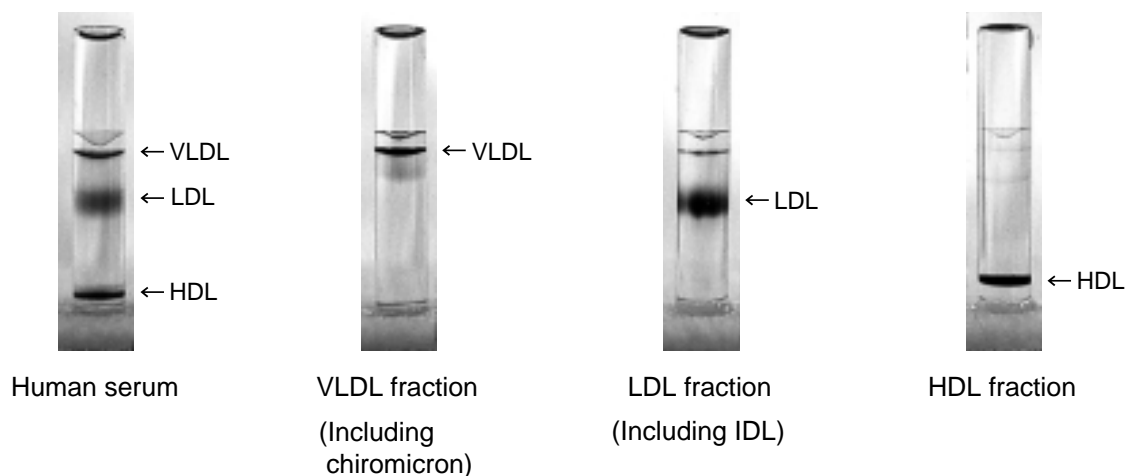
Human serum lipoprotein is thought to have something to do with atherosclerosis or hyperlipidemia and recently the association is investigated in various ways. We separated the lipoprotein (VLDL, LDL, HDL) by high performance preparative ultracentrifuge CP100 $\alpha$  and checked the purity by polyacrylamide-gel-electrophoresis.

## 1. Models used

Centrifuge : High performance preparative ultracentrifuge CP100 $\alpha$   
Rotor : P100AT2 (Fixed-angle rotor)  
Tube : 4.7 PC thick-walled tube (Single use only)  
Cap : B-Ti lid (Be sure to use)

## 2. Results

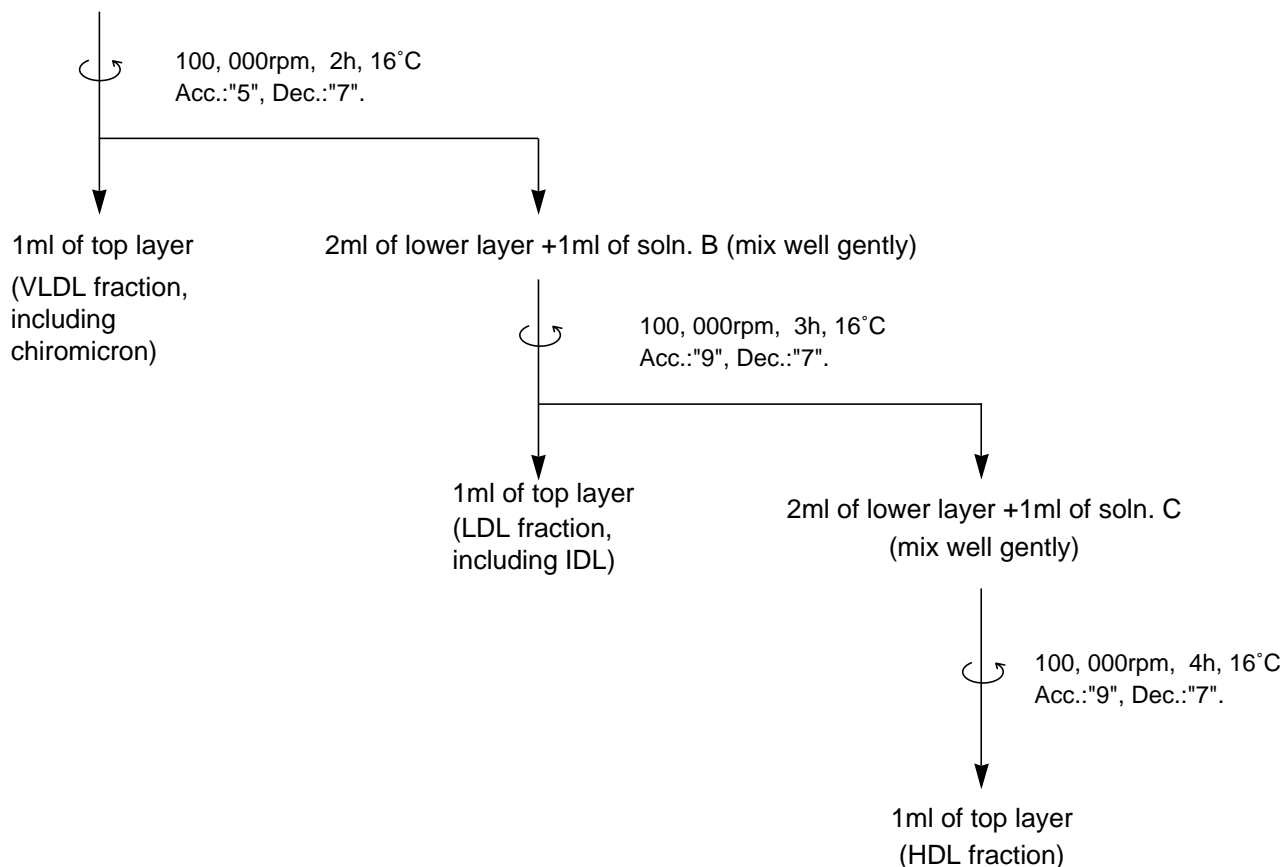
The result of polyacrylamide-gel-electrophoresis are shown in below figures. Separated lipoproteins (VLDL, LDL, HDL) by ultracentrifuge are thought to be well purified.



\*Reagent kit for polyacrylamide gel lipoprotein disk electrophoresis : Lipofor. (Joko Co., Ltd. Tokyo, Japan.)

### 3. Sample preparation

2ml of Human serum on 1ml of soln. A



- Soln. A ( $\rho=1.006\text{g/cm}^3$ ) : Dissolve 11.4g of NaCl and 0.1g of EDTA-Na<sub>2</sub> with 500ml of distilled water (DW) and add 1ml of 1N NaOH. Then add DW up to 1000ml and add more 3ml of DW. (NaCl : 0.195mol)
- Soln. B ( $\rho=1.182\text{g/cm}^3$ ) : Dissolve 24.98g of NaBr to 100ml of soln. A. (NaCl : 0.195mol, NaBr : 2.44mol)
- Soln. C ( $\rho=1.478\text{g/cm}^3$ ) : Dissolve 78.32g of NaBr to 100ml of soln. A. (NaCl : 0.195mol, NaBr : 7.65mol)

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