

**Table S1** Abbreviations

H1A2: HDL-1, Apo-A2

H2A2: HDL-2, Apo-A2

V5FC: VLDL-5, free cholesterol

L6PL: LDL-6, phospholipids

L3TG: LDL-3, triglycerides

L6TG: LDL-6, triglycerides

L5FC: LDL-5, free cholesterol

L6CH: LDL-6, cholesterol

L6FC: LDL-6, free cholesterol

L6PN: LDL-6, particle number

L6AB: LDL-6, Apo-B

L5PN: LDL-5, particle number

L5AB: LDL-5, Apo-B

L5PL: LDL-5, phospholipids

L5CH: LDL-5, cholesterol

V4CH: VLDL-4, cholesterol

V4PL: VLDL-4, phospholipids

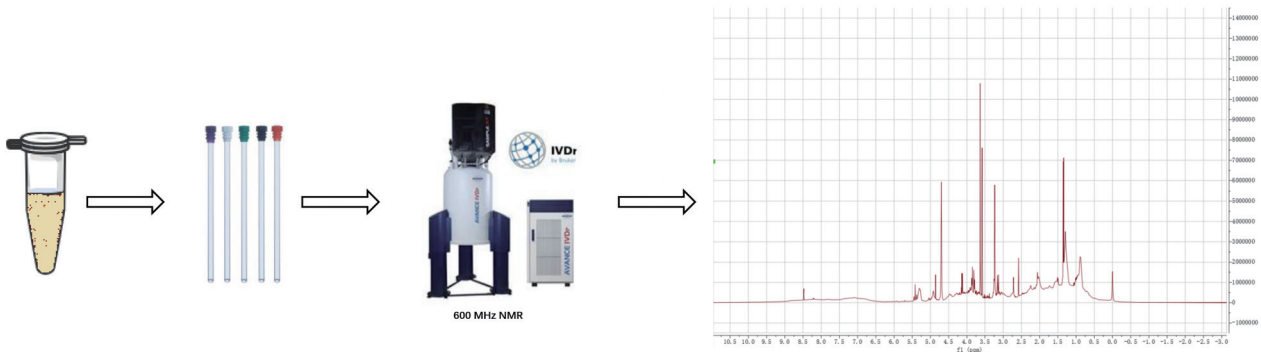
IDPN: IDL, particle number

IDAB: IDL, Apo-B

H4FC: HDL-4, free cholesterol

H4PL: HDL-4, phospholipids

LDL, low-density lipoprotein; HDL, high-density lipoprotein;  
VLDL, very low-density lipoprotein; Apo, apolipoprotein.



**Figure S1** Flowchart of metabolomics detection. The patient's plasma was transferred to the NMR tube and placed in a 600-MHz NMR instrument for detection, and the H-1 spectrum data were obtained for analysis. NMR, nuclear magnetic resonance.