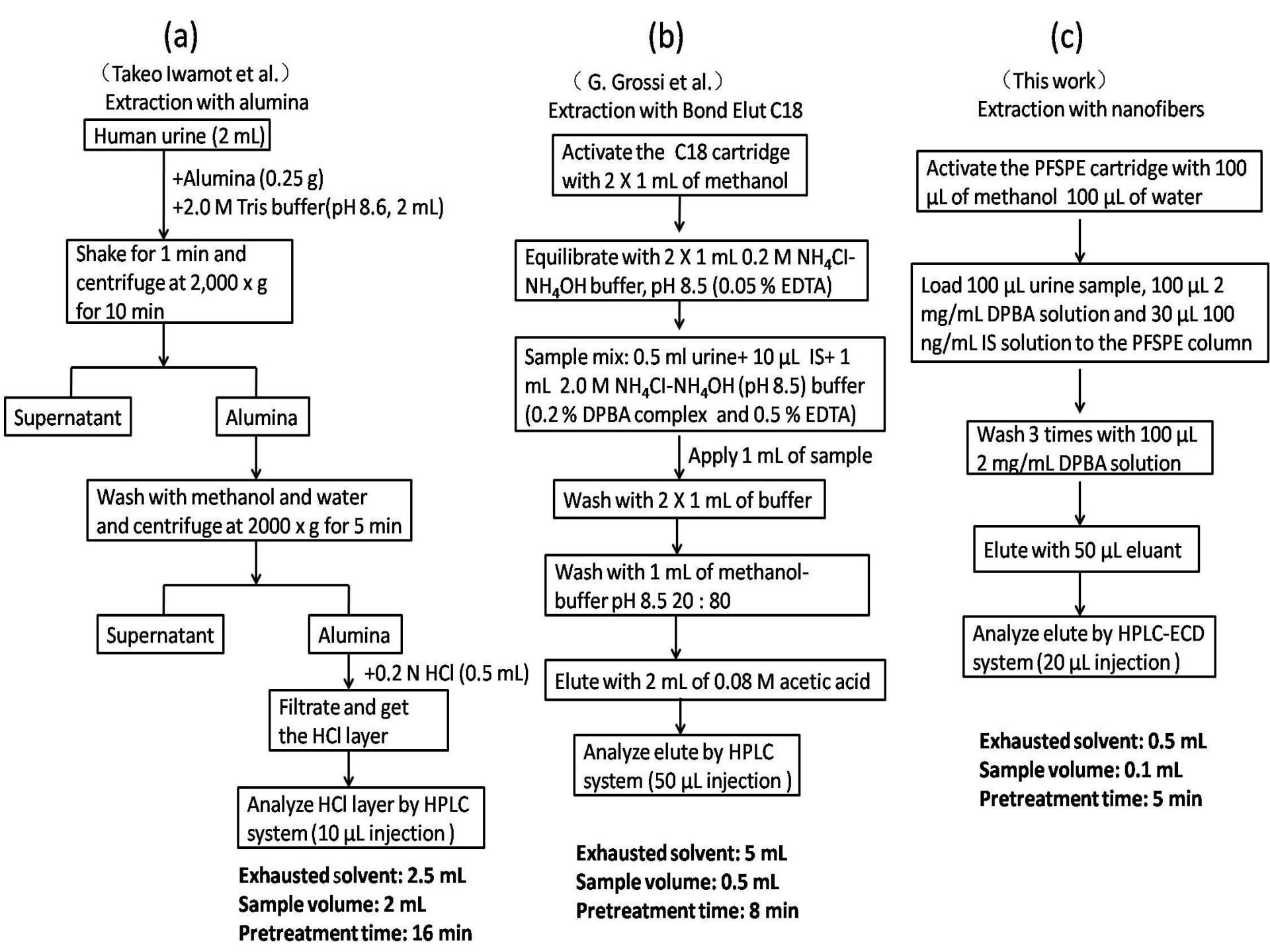
(a)
（Takeo Iwamot et al.）
Extraction with alumina
Human urine (2 mL)
+Alumina (0.25 g)
+2.0 M Tris buffer(pH 8.6, 2 mL)
Shake for 1 min and centrifuge at 2,000 x g for 10 min
Supernatant
Alumina
Wash with methanol and water and centrifuge at 2000 x g for 5 min
Supernatant
Alumina
+0.2 N HCl (0.5 mL)
Filtrate and get the HCl layer
Analyze HCl layer by HPLC system (10 µL injection )
Exhausted solvent: 2.5 mL
Sample volume: 2 mL
Pretreatment time: 16 min
(b)
（ G. Grossi et al.）
Extraction with Bond Elut C18
Activate the C18 cartridge with 2 X 1 mL of methanol
Equilibrate with 2 X 1 mL 0.2 M NH4Cl-NH4OH buffer, pH 8.5 (0.05 % EDTA)
Sample mix: 0.5 ml urine+ 10 µL IS+ 1 mL 2.0 M NH4Cl-NH4OH (pH 8.5) buffer (0.2 % DPBA complex and 0.5 % EDTA)
Apply 1 mL of sample
Wash with 2 X 1 mL of buffer
Wash with 1 mL of methanol-buffer pH 8.5 20 : 80
Elute with 2 mL of 0.08 M acetic acid
Analyze elute by HPLC system (50 µL injection )
Exhausted solvent: 5 mL
Sample volume: 0.5 mL
Pretreatment time: 8 min
(c)
（This work）
Extraction with nanofibers
Activate the PFSPE cartridge with 100 µL of methanol 100 µL of water
Load 100 µL urine sample, 100 µL 2 mg/mL DPBA solution and 30 µL 100 ng/mL IS solution to the PFSPE column
Wash 3 times with 100 µL 2 mg/mL DPBA solution
Elute with 50 µL eluant
Analyze elute by HPLC-ECD system (20 µL injection )
Exhausted solvent: 0.5 mL
Sample volume: 0.1 mL
Pretreatment time: 5 min