

DA-b-10

Automated Genomic DNA extraction from buccal swab

Protocol

2 ml micro tube

Surface of swab 1MDT : 180 μlEDT : 20 μl

Incubate for 3~4 hours on rotary shaker at 55°C

10,000 rpm, 3 min, RT^{*2}

Transfer the supernatant to a 2 ml micro tube *3

<Option> RNase A treatment*4

Set into the device (QuickGene-Auto12S/24S)

Protocol: DNA TISSUE (Elution volume : 200 µl *5)

*Please refer to Quick Start Guide or operation manual to know how to set sample tube.

- 1. Pre-heating for 3 min
- 2. Add 180 µl of Lysis Buffer (LDT)
- 3. Mix by pipetting
- 4. Incubation at 60°C for 5 min
- Transfer the lysate and mix with 240 μl of Ethanol(>99%).
- 6. Mix by pipetting
- 7. Apply the lysate into the cartridge
- 8. Pressurizing
- 9. Wash 3 times by Wash Buffer (WDT)
- Add selected volume of Elution buffer and elute genomic DNA into collection tube.

Genomic DNA

- *1Collect oral mucosa with a cotton swab, then dry up and store. Before DNA isolation, Remove half of the surface of the cotton ball with a scalpel.
- *2 Remove unlysed portions by centrifugation.
- *3 Following microtube are recommended.
 #BM4020
 (BM instrument co., ltd)
 #72.695.700,
 #72.695.500S
 (SARSTEDT)
- 4 Optional steps
 RNaseA: 20 µl
 Tap the tube to mix the solution.
 Flash spin down.
 Set it down at room temperature for 2 min.
- *5 The default volume of CDT is 200 µl. The volume of CDT can be reduced to 50 µl, but in that case, elution efficiency might be decreased.





Results

The yield of genomic DNA

Sample ID	#1	#2	#3	#4	#5	#6
Yield (μg)	0.50	0.50	0.52	1.02	0.36	3.09

Protein contamination: A260/280

Sample ID	#1	#2	#3	#4	#5	#6
A260/280	1.87	1.94	1.97	1.90	1.59	1.97

Common protocol is usable for the following

