

Automated_Genomic DNA Extraction from Whole Blood of Dead Body

Protocol

2 ml microtube (sample tube)*1

Set into the device

Protocol: DNA WHOLE BLOOD (Elution volume: 200 µl *4)

*Please refer to Quick Guide or operation manual

to know how to set sample tube.

- 1. Pre-Heating (3 min)
- 2. Add 250 µl of Lysis Buffer (LDB)
- 3. Mix by pipetting
- 4. Incubation at 50°C for 2 min
- Transfer the lysate and mix with 250 μl of Ethanol (>99%)

- 6. Mix by pipetting
- 7. Apply the lysate into the cartridge
- 8. Pressurizing
- 9. Wash 3 times by Wash Buffer (WDB)
- Add selected volume of Elution buffer and elute genomic DNA into collection tube.

Genomic DNA

- *1 Following microtube are recommended. #BM4020 (BM instrument co., ltd) #72.695.700(SARSTEDT) #72.695.500S(SARSTEDT
- *2 Leave EDB for 30 min at room temperature after adding nuclease free water and mixing, and use it after perfect dissolution.
- *3 When the blood is concentrated by coagulation or corruption, dilute the blood with PBS or normal saline and mix by pipetting before use
- *4 The volume of the eluate from each cartridge is 200 µl. The volume of Elution buffer can be reduced to 50 µl, but in that case, elution efficiency might be decreased.

Depending on sample and storage conditions, nucleic acid may not be extractable. Therefore, we cannot guarantee accurate data.

The extracted nucleic acid contains unintended acid (ex: when extracting DNA, RNA is also extracted).



Results

The yield of genomic DNA (200 μl of blood)

| Sample ID | #1 | #2 | #3 | #4 | #5 | #6 |
|------------------------|-------|------|------|------|------|------|
| Time of blood | 19 | 2 | 1 | 1 | 5 | 1 |
| collection after death | hours | days | day | day | days | day |
| Storage time at 4°C | 18 | 18 | 15 | 15 | 10 | 10 |
| | days | days | days | days | days | days |
| Yield (µg) | 23.0 | 7.8 | 4.3 | 5.5 | 7.1 | 7.2 |

Protein contamination: A260/280

| Sample ID | #1 | #2 | #3 | #4 | #5 | #6 |
|-----------|------|------|------|------|------|------|
| A260/280 | 1.87 | 1.83 | 1.90 | 1.94 | 1.81 | 1.88 |

Common protocol is usable for the following

Canine Whole Blood