

# Automated Genomic DNA Extraction from Mouse Liver

## Protocol

2 ml micro tube  
 ↓  
 ← Slice of mouse liver : 5 mg  
 ← MDT : 180 µl  
 ← EDT : 20 µl  
 Incubate for over night on rotary shaker at 55°C, and dissolve the tissue completely

↻ 10,000 rpm, 3 min, RT <sup>\*2</sup>

Transfer the supernatant to a 2 ml micro tube

↓ ← <Option> RNase A treatment <sup>\*3</sup>

Set into the device  
 Protocol: DNA TISSUE  
 (Elution volume : 200 µl <sup>\*4</sup>)

\*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
5. 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)
10. Add selected volume of Elution buffer and elute genomic DNA into collection tube.

Genomic DNA

Following microtube are recommended.

\*1 #BM4020  
 (BM instrument co., ltd)  
 #72.695.700,  
 #72.695.500S  
 (SARSTEDT)

Remove unlysed portions by  
<sup>\*2</sup> centrifugation.

Optional steps  
 RNaseA : 20 µl  
<sup>\*3</sup> Tap the tube to mix the solution.  
 Flash spin down.  
 Set it down at room temperature for 2 min.

For example, from 5 mg liver tissue of Balb/c mouse (7 week, ♀), 4.0 µg genomic DNA can be gained.  
<sup>\*4</sup> 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

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### The yield of genomic DNA

Sample ID	#1	#2	#3	#4	Average
Yield (µg)	7.1	6.9	9.3	8.1	7.9

### Protein contamination : A260/280

Sample ID	#1	#2	#3	#4	Average
A260/280	1.92	1.90	1.92	1.99	1.93

### Chaotropic salt contamination : A260/230

Sample ID	#1	#2	#3	#4	Average
A260/230	2.17	2.02	2.08	2.20	2.12

## Common protocol is usable for the following

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Mouse Lung, Mouse Kidney

### Contact Information

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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).