

**INTRODUCTION**

Tissue DNA extraction kit provides a simple and rapid method for the isolation of total DNA from animal tissues and cultured cells. This kit can process 25 mg of wet tissue and yields up to 50 µg depending on the type of samples used. Specially formulated buffer system minimizes RNA copurified with DNA without RNase A treatment. If RNA-free genomic DNA is required, RNase A can be used to treat DNA samples. No organic extraction and alcohol precipitation are needed for a sample of mouse tail genotyping, and multiple samples can be easily processed.

**FEATURES**

- Accurate and consistent DNA extraction from animal tissues, cultured cell line.
- Instant use: No need for additional materials.
- Simple and safe procedure.
- No use of organic solvents.
- Ready for use in PCR, Southern blotting, and other enzymatic reactions.

**KIT CONTENT**

Component	Part Size
Extraction Buffer	25 mL
Proteinase K (20mg/mL)	1 mL
Ammonium Acetate (8M)	25 mL
TE Buffer (1x)	50 mL

Note: The kit is enough for 1000 samples.

**STORAGE**

Store kit at 4°C for 1 years.

**PROCEDURES**

**Extraction Buffer Preparation:**

- Perform entire procedure in 1.5ml microfuge tubes with screw cap for heating processing.
- If you don't plan to extract tissues quickly (with 1-2 hours), transfer them to -80 or -20°C freezer for long-term storage.
- Prepare digestion solution by mixing 1 part Proteinase K with 20 parts of extraction buffer (1:20). The digestion solution of 20 µL is used for each 3 mm tissue.

**DNA Extraction Procedure:**

1. Add 20 µL digestion solution to each tube. If needs, crush tissue in solution with clean, sterile, blue pestle until well dispersed.
2. Close tube with screw cap. Quick spin the tube in centrifuge to make sure the tissue in the bottom of the tube.
3. Incubate tubes at 60°C-67°C for 15-30min.
4. Add 80 µL ddH<sub>2</sub>O to each tube, vortex 5', quick spin. Transfer supernatant into new tubes ([For mouse tail sample genotyping, no further step is needed](#)).
5. Add 40 µL Ammonium Acetate, 200 µL isopropanol, or ethanol.
6. Vortex the tubes for 1 min.
7. Spin 14,000 rpm for 5 min.
8. Decant the supernatant and wash the pellet with 70% ethanol 3 times.
9. Air-dry DNA 10-30 min, then add 50 µL TE buffer or ddH<sub>2</sub>O to dissolve the DNA pellet.
10. Take 5 µL to do PCR or store at -20°C for later use.



PCR reaction was performed with extracted DNA using Tissue DNA extraction kit. Template was isolated from mouse (Lane 1 ~ 2, 7 ~ 8), spleen (Lane 3 ~ 4, 9 ~ 10), and kidney (Lane 5 ~ 6, 11 ~ 12). M: 1 kb ladder marker.

**RELATIVE PRODUCTS**

- Cell RNA Isolation Kit (TBS6001)
- Blood RNA Isolation Kit (TBS6002)
- Nucleic Acid Precipitation Enhancer (TBS6010)
- Mouse Tail DNA Extraction (TBS6005)
- Cell DNA Extraction Kit (TBS6007)
- 2x SYBR Green qPCR Super Mix (TBS4001)
- 2x Taqman qPCR Master Mix (TBS4002)
- 2x Genotyping PCR Ready Mix (TBS4003)
- Reverse Transcription Reaction Kit (TBS4006)

For research use only.