



## Genorise<sup>®</sup> Mouse Tail DNA Extraction Kit 100

This kit is to isolate total DNA including genomic and mitochondrial DNA from 5 mm mouse tail and is for 100 applications. This kit can significantly improve quantity and quality of DNA and is much more cost-effective than the similar products.

### Materials provided in the kit:

- 50 ml Lysis Solution
- 20 ml Protein Precipitation Solution
- 60 ml DNA Hydration Solution
- 0.4 ml 10 x DNA Sample Loading Buffer

### Materials required but not provided in the kit:

- Proteinase K, prepare at 20 mg/ml and store at -20°C
- Isopropanol (2-propanol)/Ethanol

## Protocol

### Cell Lysis

1. Place 5 mm of mouse tail in a 1.7 ml microcentrifuge tube, and add 0.5 ml of Lysis Solution and 3  $\mu$ l Proteinase K solution (20 mg/ml), vortex for 20 sec.
2. Incubate at 55°C for overnight.

### Protein precipitation

1. Cool sample to room temperature by placing on ice for 1 min.
2. Add 0.2 ml of Protein Precipitation Solution to the lysate.
3. Vortex samples at high speed for 20 sec and place sample into an ice bath for 5 min.
4. Centrifuge at 15,000 x g for 5 min.

### DNA Precipitation

1. Pour the supernatant containing DNA into a new 1.7 ml microcentrifuge tube.
2. Centrifuge at 15,000 x g for 5 min.
3. Pour the supernatant to a new microcentrifuge tube; repeat step 1 and 2 until no pellet is seen.
4. Pour the supernatant containing DNA into a new 1.5 ml microcentrifuge tube containing 0.5 ml 100% isopropanol (2-propanol).
5. Mix the samples by inverting gently 50 times and incubate at room temperature for 10 min.
6. Centrifuge at 13,000 x g for 5 min.
7. Pour off the supernatant and drain the tube briefly on clean absorbent paper. Add 1 ml of 70% ethanol and invert the tube several times to wash the DNA pellet.
8. Centrifuge at 13,000 x g for 5 min, carefully pour off the ethanol and do not lose the DNA pellet.
9. Invert and drain the tube on clean absorbent paper, completely remove the remaining liquid by a pipette, and finally allow air dry for 5 min.

### DNA Hydration

1. Add 30  $\mu$ l DNA Hydration Solution.
2. Resuspend the DNA by a pipette for 5 times and rehydrate the DNA by incubation for 10 min at room temperature.
3. Vortex briefly and pulse spin before use, and store at -20°C.

### Note

1. Following DNA precipitation, if you see a big pellet with a color other than white, we recommend you repeat this protocol with a start volume of 0.5 ml of DNA isolate and 1 hr cell lysis.
2. Do not air dry DNA pellet more than 5 min.