

Quick Start Guide

GenElute™ Mammalian Genomic DNA Kit

G1N10, G1N70, G1N350

Reagents to Prepare

- Dilute the Wash Solution Concentrate with 10 mL (10 preps), 80 mL (70 preps) or 360 mL (350 preps) of 95–100% ethanol. After each use, tightly cap the diluted Wash Solution to prevent ethanol evaporation.
- Dissolve one bottle of Proteinase K in water to obtain a 20 mg/mL stock solution. This solution can be stored for several days at 2–8 °C or for long term storage, aliquots may be stored at –20 °C until needed.

Protocol

All spins at $\geq 6,500 \times g$ unless otherwise noted.

Release DNA from Cells

1. Cultured Cells
 - a. Pellet up to 5×10^6 cells by spinning at $300 \times g$. Discard medium.
 - b. Resuspend cells in 200 μ L Resuspension Solution. **Optional:** Add 20 μ L RNase A. Mix & incubate at room temperature for 2 min.
 - c. Add 20 μ L Proteinase K, followed by 200 μ L Lysis Solution C. Vortex thoroughly. Incubate at 70°C for 10 min.
 - d. Continue to **Bind DNA to Column**.

Release DNA from Tissues

1. Mammalian Tissues
 - a. Mince up 25 mg tissue on ice. Transfer to microcentrifuge tube.
 - b. Add 180 μ L Lysis Solution T to tissue & 20 μ L Proteinase K. Vortex or invert to mix. Incubate at 55°C until fully digested (2–4 h). **Optional:** After digestion add 20 μ L RNase A. Mix and incubate at room temperature for 2 min.
 - c. Continue to **Bind DNA to Column**.

Bind DNA to Column

2. Column Preparation: Add 500 μ L Column Preparation Solution to assembled column in collection tube and spin at $12,000 \times g$ for 1 minute. Discard flowthrough.
3. Add 200 μ L ethanol to cell lysate. Vortex or invert to mix.
4. Transfer to column and spin for 1 min. Discard collection tube with flowthrough.

Wash to remove contaminants

5. Transfer column to new collection tube. Add 500 μ L diluted Wash Solution to column. Spin 1 min and discard flowthrough. Repeat once.
6. Spin 3 min to completely dry the column.

Elute purified DNA

7. Transfer column to new collection tube.
8. Add 200 μ L Elution Solution to column. Spin 1 min. Repeat elution in the same or new tube if desired.

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