

Animal and Fungi DNA Preparation Kit

Genomic DNA purification from animal tissue and fungi

DNA Preparation Kit

Cat.-No.	Amount
PP-208S	100 preparations
PP-208L	400 preparations

For *in vitro* use only
Quality guaranteed for 12 months
Store at room temperature
For long term storage place Proteinase K and RNase A lyophilisates at -20°C
Proteinase K and RNase A Solutions should be stored at -20°C

Description

Animal and Fungi DNA Preparation Kit is designed for convenient and fast isolation of genomic DNA from animal tissue and fungi. The solution based system minimizes DNA fragmentation that may be problematic in spin-column / filtration based methods. Because phenol or chloroform is not used it is safe and does not produce any harmful waste.

Kit contents

Cell Lysis Solution 1%
Proteinase K (before use, solve in 800 µl water to a final concentration of 20 mg/ml)
Protein Precipitation Solution
DNA Hydration Solution
RNase A ((before use, solve in 800 µl water to a final concentration of 4 mg/ml))

To be provided by you

Isopropanol (2-propanol) >99%
Ethanol 80%
Microtubes 1.5 ml

Preparation procedure

Before start, provide >99% Isopropanol (2-propanol) and 80% Ethanol (both not included in the kit).

Add 800 µl dd-water to the *Proteinase K* and *RNase A lyophilisates*. The *Proteinase K* and *RNase A* Solutions should be stored at -20°C.

1a Cell Lysis for Animal Tissue

- Transfer 5-10 mg of fresh or frozen tissue to a 1.5 ml microtube.
- Add 300 µl *Cell Lysis Solution* to the tissue.
- Add 1.5 µl *Proteinase K Solution* to the lysate and mix by inverting several times.
- Incubate at 55°C overnight or until tissue has dissolved.

2b Cell Lysis for Fungi

- Transfer 1 ml of the cultured cells to a 1.5 ml microtube.
- Harvest the cells by centrifuging at 15,000g for 1 min and discard supernatant.
- Resuspend the cell pellet in 300 µl *Cell Resuspension Solution*.
- Add 1.5 µl *Proteinase K Solution* and mix by inverting several times.
- Incubate at 55°C for 60 min.
- Centrifuging at 15,000g for 1 min and discard supernatant.
- Resuspend the pellet in 300 µl *Cell Lysis Solution*.

3. Protein Precipitation

- Add 100 µl of *Protein Precipitation Solution* to the cell lysate.
- Mix the solution well by vortexing for 20 sec.
- Centrifuge at 15,000 g for 3 min. (The precipitated protein will be a tight pellet. If the pellet is not tight, repeat mixing, incubate on ice for 10 minutes, and then centrifuge again.)

4. DNA Precipitation

- Transfer the supernatant to a clean 1.5 ml microtube containing 300 µl of *Isopropanol >99%*.
- Mix the sample by inverting gently 50 times.
- Centrifuge at 15,000 g for 1 min. The DNA will be visible as a pellet that ranges in color from off-white to light green.
- Discard the supernatant and drain tube briefly on clean absorbent paper.
- Add 300 µl *Ethanol 80%* and invert tube several times to wash the DNA pellet.
- Centrifuge at 15,000 g for 1 min. Discard the ethanol carefully.
- Air dry at room temperature for 10-15 min.

5. DNA Hydration

- Add 50-100 µl of *DNA Hydration Solution* to the dried DNA pellet.
- Add 1.5 µl of *RNase A* to the cell lysate
- Mix the sample by inverting the tube and incubate at 37°C for 30-60 min.
- Hydrate the DNA by incubating sample at 65°C for 60 min.
- Store DNA at 4°C. For long time storage, place sample at -20°C or -80°C.