5-min. Genomic DNA Prep for PCR

Cat. #: P930-5 (5 reactions); P930-100 (100 reactions); P930-500 (500 reactions)

Storage: at room temperature **Shelf Life:** 12 months

Product Description

This Genomic DNA Preparation kit for PCR (genotyping PCR template prep kit) can extract genomic DNA from animal tissues (such as mouse tail), cultured cells and blood (fresh or anti-coagulated with EDTA, citrate, or heparin) for PCR.

This product is for research use only.

Product Components (Store at room temperature**)**

Component	Amount		
	Cat. #: **P930-5**	Cat. #: **P930-100**	Cat. #: **P930-500**
Solution A	1.5 mL	30 mL	150 mL
Solution B	1 mL	20 mL	100 mL
Solution C	0.1 mL	2 mL	10 mL

Protocol:

1. **Step 1:**
   a. **Mouse tails:** Place 2 ~ 3 mm mouse tail in a 0.5 mL microcentrifuge tube containing **300µL solution A.** Proceed to step 2.
   b. **Cultured cells:** Add 1 X 10^4 ~ 1 X 10^5 cell suspension (minimum volume) in <10 µL to a 0.5 mL microcentrifuge tube containing **300µL solution A** or add **200µL solution A** to a cell pellet that contains 1 X 10^4 ~1 X 10^5 cells. Proceed to step 2.
   c. **Blood** (fresh or anti-coagulated): Add 5 ~ 10 µL blood into a 0.5 mL microcentrifuge tube containing **300µL solution A**
2. **Step 2:** Vortex the tube briefly and incubate at room temperature for **2 min**. Centrifuge at **10,000 rpm** for **1 min**., discard the supernatant without disturbing the tails or cell pellets. Add **60 µL solution B** to the tube.
3. **Step 3**: Place the tube in a thermocycler and heat at **95ºC** for **2 min**. Cool the tube to room temperature. Add **6µL solution C** and vortex briefly. Extracted genomic DNA is now ready for use as PCR temperate or for longer term storage at -20ºC.

Recommended PCR conditions

PCR reaction mix *:

2 X PCR master mix	25 uL
Primers (forward/reverse)	1~2 uL (0.5-1.0uM each)
DNA temperate	5~10 uL
H2O	to 50 uL

PCR amplification:

A. Denaturing:	95°C	3 min (1 cycle)
B. Denaturing:	95°C	30"
C. Annealing:	55~64°C	1 min
D. Extension:	68~72°C	45"

Repeat B~D for 30-35 cycles

* If desired, the final reaction volume can be reduced to 25uL.

Note:

The function of buffer A is

1. to lyse RBC in tissue or blood samples.
2. to breakup plasma membranes without lysing the nuclei if cultured cells are used.

So that the cytosolic protein and cell membrane debris can be removed before the genomic DNA is released from nuclei.

Related products:

Product name	Cat.#	Feature
1-Drop PCR Mix (squeeze bottle, no pipetting)	W2599	Easy to use, robust
2x GoldStar Best Master Mix	W0655	High specific, High Fidelity
2x Es Taq Master Mix	W0690	High sensitivity, robust
Ultra SYBR Green qPCR Master Mix	W2601	High sensitivity, high specificity, high efficiency
HiFiScript 1st Strand cDNA Synthesis Kit	W2569	High sensitivity / efficiency, no RNase H activity
Super DNA Marker	W2583	Cover 100 bp ~ 10,000 bp