Direct PCR Kit for Tissue Samples

Code No.: NG005S 100 T
NG005M 200 T

Storage: Store at 4° C and avoid repeated freezing and thawing.

contents	**Storage**	100 T	200 T
Solution A	4° C	100 ml	200 ml
Solution B	4° C	100 ml	100 ml
2×PCR mix	4° C	1 ml	2 ml
ddH2O	4° C	1 ml	2 ml

Introduction:

This kit is a highly efficient and convenient universal tool for rapid genomic DNA extraction, designed specifically for molecular biology research. This kit utilizes optimized lysis and neutralization buffer formulations, requiring only simple heating and mixing steps to extract high-quality genomic DNA from various tissue sample within 30 minutes, suitable for downstream applications such as PCR amplification, genotyping, and gene knockout validation, etc.

NOTE:

1. Please wear gloves during operation to prevent sample contamination.
2. Recommended to use fresh samples to ensure optimal DNA extraction results.
3. If the sample volume is very large, the lysis system can be appropriately increased;

Product Specifications:

1. Efficient and stable buffer system.
2. High sensitivity: low abundance template can be effectively amplified.
3. Wide applicability: The reaction system can effectively expand the complex template structure and high GC content template.
4. Easy operation: The entire process requires no complex equipment.
5. Wide applicability: Suitable for fresh or preserved tissue and cell s with strong applicability.

Operation Procedure:

Note: Before proceeding, please ensure that all reagents and equipment are ready.

1. Preparing samples.

Cut 2-5 mm of mouse ear or liver tissue, or 1-3 mm of mouse tail, or 1-2 toes, and place them in a 1.5 ml centrifuge tube.

2. Reaction

Add 100 μl Solution A into the EP tube containing the sample. Place the EP tube in a 95° C water bath or thermal cycler and heat for 20 minutes.

3. Termination

Add 100 μl Solution B into the EP tube. Gently vortex the EP tube for 3-5 seconds to ensure uniform mixing. Centrifuge briefly for 5-10 seconds.

4. DNA

Take 2 μl of the supernatant and use it directly for PCR amplification. DNA samples can be stored at -20° C for subsequent experiments.

5. PCR

PCR reaction system：

content	**25 μl**	**50 μl**	**Final Conc.**
2×NG PCR MasterMix	12.5 μl	25 μl	1×
Forward Primer（10 μM）	1-2.5 μl	2-5 μl	400-800 nM
Reverse Primer（10 μM）	1-2.5 μl	2-5 μl	400-800 nM
Template			pg-ng
ddH_2O	Up to 25	Up to 50 μl	

PCR reaction conditions

No. of Cycles	Temperature	Time	Step
1	95 ℃	2-5 min	Initial denaturation
30-35	95 ℃	30 sec	Denaturation
	50-65 ℃	30 sec	Annealing
	72 ℃	1-2 kb/1 min	Extension
1	72 ℃	10 min	Extension

Note:

To ensure the efficiency of PCR amplification, must be avoided repeated freezing and thawing.

6. Electrophoresis detection