

Direct DNA Amplification Kit

Simple lysis, simple amplification

■ Introduction

- Various plant and animal tissue samples such as mouse tails, toes, ears, plant leaves, and seeds only require simple lysis to serve as PCR amplification templates.
- Blood, blood spots, saliva, bacterial cultures, and cells don't need crude lysis steps and can be used directly as PCR amplification templates.
- The 2× Direct Amplification Mix (Dye) contains an electrophoresis indicator, allowing for direct agarose gel electrophoresis after the PCR reaction.
- Suitable for experiments such as transgenic mouse detection, mouse genotyping, direct amplification of plant and animal samples, direct amplification of blood, and colony amplification.

■ Features



Easy to Use

No complex sample processing steps or additional purchase of genomic DNA extraction kits are required. Experiments can begin with tissue samples as small as approximately 2 mm in diameter.



Direct PCR Amplification

High-purity nucleic acid templates are not required. Blood, blood spots, saliva, bacterial cultures, and cells can be used directly as PCR amplification templates.



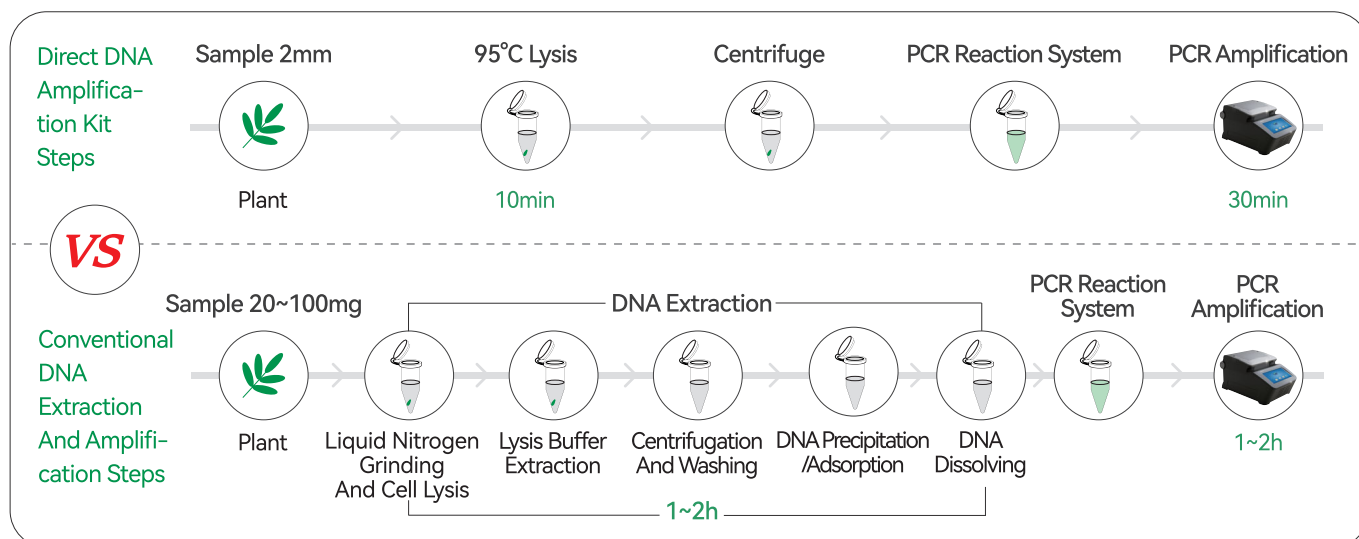
Rapid PCR Amplification

The extension time can be 1 sec/kb at maximum.



Safe

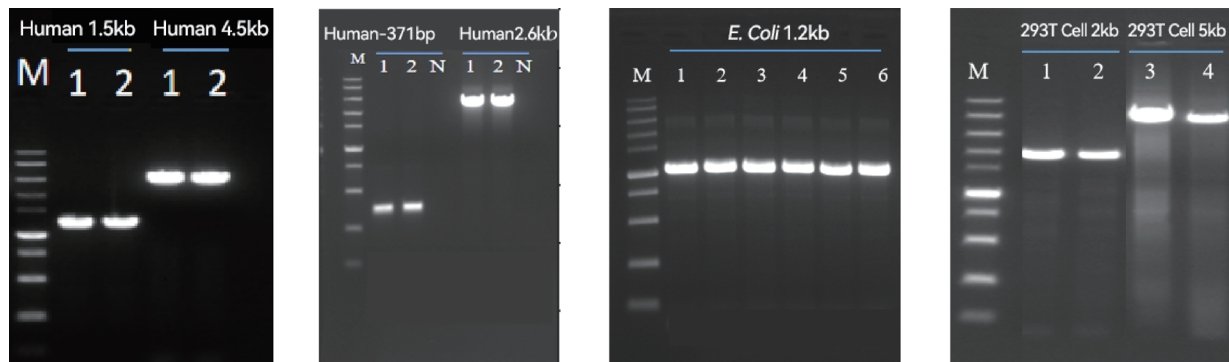
No toxic substances such as phenol or chloroform are required. No hazardous procedures such as liquid nitrogen grinding are required.



■ Experiment

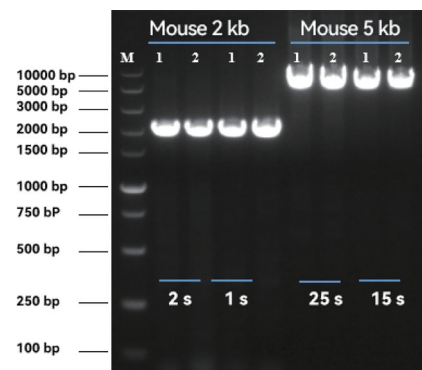
Direct PCR Amplification

Experiment 1: A certain amount of blood (1 μ L), bacterial culture (diluted 10 times, 1 μ L), saliva (1 μ L), and cells (2000 cells) were added directly to 2 $\times$ Direct Amplification Mix (Dye) without any pre-treatment for PCR amplification, with a reaction volume of 25 μ L. The results show that Direct DNA Amplification Kit exhibits high robustness and wide sample compatibility, allowing direct amplification of blood, saliva, bacterial culture, and cell samples.



Rapid PCR Amplification

Experiment 2: Using mouse tail tissue as the starting sample, the supernatant obtained from a simple treatment with DNA Extract Solution A/B in Direct DNA Amplification Kit was used as a template for PCR amplification with 2 $\times$ Direct Amplification Mix (Dye). Different extension times were applied to amplify target genes of 2 kb and 5 kb, respectively, to test amplification speed. The results show that the Direct DNA Amplification Kit enables rapid PCR amplification directly from mouse samples. For the 2 kb fragment, the amplification effect was almost identical with extension speeds of 1 s/kb and 2 s/kb. For the 5 kb fragment, the amplification effect was almost identical with extension speeds of 3 s/kb and 5 s/kb.



■ Order Information

Cat. No.	Product Name	Specification
CW0557S	Direct DNA Amplification Kit	80 rxns
CW0557M		400 rxns