ZmTech ® Fast Lysis-PCR Genotyping Kit (Cat. GT002p)

Product Information:

Kit contains: Blood Genomic DNA Extraction Reagent (10mL), 2x PCR Mastermix (1.25 mL);
Catalog Number: GT-002p
Sizes: 100 extractions
Storage Conditions: Store at -20ºC

Description:

Zmtech fast lysis-PCR genotyping reagents contain a combination of enzyme(s), detergents, and PCR required reagents that lysate the mammal blood samples within 15 minutes and directly used to run PCR reactions without any further DNA purification.

Features and Benefits:

a simple, rapid, environmental-friendly process without using vacuum filtration and toxic organic solvents such as phenol or chloroform, directly prepared for PCR, qPCR and other DNA assays.

- Key features:
  1. Obtain blood genomic DNA within 15 minutes.
  2. Single tube handling during DNA extraction procedures.
  3. No need for organic extraction and precipitation of the DNA.

Procedure:

1. Prepare a 5-10 ul blood pellet sample without blood serum in a 1.5ml microcentrifuge tube.
2. Add 50ul Blood Genomic DNA Extraction Reagent into the sample tube. Incubate at 95-100ºC for 15 minutes .
3. Centrifuge at 12,000 xg for 2 minutes at 4ºC and pipette 1-2 ul the lysate supernatant into a 25ul PCR Master Mixture and run PCR/Real-Time PCR at thermal cyclers.

Suggested PCR Protocol:

I. Preparation of PCR Master Mix
for a single reaction (total volume: 25uL) in a 0.2 or 0.5mL microtube.

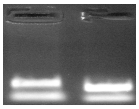
Component	Volume (µL)	Final Concentration
Lysate supernatant	1	determined by user
2x PCR Mastermix	12.5	1x
Forward primer (5µM)	1	200nM
Reverse primer (5µM)	1	200nM
DdH_2O	9.5	
Total Volume:	25 µL	

II. Setup typical thermal cycling parameters

Enzyme activation step:	95°C	5 minutes
25-40 cycles:		
Denaturation	95°C	30 seconds
Annealing	X°C	30 seconds dependent on Tm of primers
Extension	72°C	30 seconds (1min per kb amplicon)
Hold at 4-8°C		

III. Figure:

PCR analysis of genomic DNA extracts from mouse blood samples at 5ul and 10ul pellets using Zmtch Fast Lysis-PCR genotyping kit (GT-002p). Genomic DNA in 1ul lysate supernatant was directly amplified in a 25 ul PCR reaction for 30 cycles. Lane: 1 2



Technical Tips:

1. Optimize the roughly proportional volume of blood samples and Blood Genomic DNA Extraction Reagent (1:5-10)
2. Lysates are stable at 4°C for at least 6 months and at room temperature for 1-2 weeks. For longer-term storage at room temperature, it is necessary to further purify the crude lysates, using the following procedure: add NaCl to a final concentration of 250mM, and then add 0.7 volume of pure ethanol to precipitate DNA, spin down DNA at 4°C for 3 minutes, discard supernatant and dissolve DNA in 50ul TE buffer (10 mM Tris-Cl, pH 7.5; 1 mM EDTA).
3. The kit may be used for other genomic DNA extractions from various animal blood/ samples and cells.

Precautions and Disclaimer:

This product and procedure described are intended for R&D use only. Purchase of this product does not convey a license to perform any patented process.

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