Fast Mouse Genotyping System (Catalog# TBS4033)

Sufficient For 250 RXNS

DESCRIPTION

The Fast Mouse Genotyping System is designed for rapid DNA extraction and PCR amplification from mouse tail/toe/ear punch and other tissues. With this system, the DNA extraction can be done within 10 minutes. The PCR product can be directly loaded onto gel for genotype analysis.

The 2x Genotyping PCR Mix contains all reagents required for PCR including Taq DNA polymerase, dNTPs, $MgCl_2$, reaction buffer, tracking dye, density and PCR stabilizers and enhancers at optimal concentrations for consistent and efficient PCR amplification. All you need is to add primers, DNA template and water. The PCR products can be directly loaded onto electrophoresis gel.

APPLICATIONS

● Mouse Genotyping; DNA mutagenesis.

KIT CONTENTS

Fast DNA Extraction: 10mL
2x PCR Ready Mix: 2x 1.25 mL
Sufficient reagent for 250 x 20µL

STORAGE CONDITIONS

The kit is shipped on ice. Store all components at -20°C in a frost-free freezer. Shelf life of 12 months after receiving.

KEY FEATURES

Convenient: The system contains all components for DNA extraction and PCR amplification.
No Loading Dye Required: The PCR products can be directly loaded onto electrophoresis gel.
High Fidelity: The optimal buffer condition and specifically engineered Taq DNA polymerase have increased the efficiency of PCR amplifications.

DNA EXTRACTION PROCEDURES

1) Cut 2-3mm of mouse tail and put it in a 1.5ml tube.
2) Add 40 µL Extraction Solution to each tube. Spin the tube to make sure the tail sample is in solution.
3) Incubate tubes at 68°C for 7 min. Vortex for 5 second, quick spin.
4) Add 360 µL dH_2O to each tube, vortex for 5 seconds, quick spin.
5) Keep the tube in boiling water or in a heated plate (95°C) for 3 min.
6) Spin at 10,000 rpm for 5 min. DNA is now in the supernatant fluid.

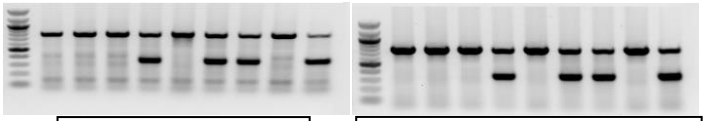
PCR PROCEDURES

For 20 µL/PCR reaction:

2x PCR Mix	10 µL
DNA	2 µL
Primers	1-2 µL
Water	6-7 µL

PCR conditions: 95°C, 5min → (95°C, 30S → 60°C, 60S → 72°C, 30S) → 25-35 cycles → 72°C, 5 min.

Identify the genotype: Load the PCR product onto agarose gel for genotype analysis.



Sigma PCR Mix | **TBS Genotyping PCR Mix**

Comparison between TBS Genotyping PCR and Brand PCR Mix

RELATED PRODUCTS

Tail DNA Extraction kit (TBS6005)
Fast DNA Extraction kit (TBS6008)
2x PCR Blue Mix (TBS4004)
2x PCR Red Mix kit (TBS4005)
Fast rat Genotyping System (TBS4034)
Fast fish Genotyping system (TBS4035)

REFERENCES

1. Birch DE. (1996): Simplified hot start PCR. Nature, 381(6581): 445-446

2. Kellogg DE et al (1994): TaqStart Antibody: "hot start" PCR facilitated by a neutralizing monoclonal antibody directed against Taq DNA polymerase. Biotechniques. 16(6): 1134-7

This product is for *in vitro* research use only and is not intended for use in humans or animals in therapeutic or diagnostic procedures.

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