Tribioscience

Fast Zebrafish Genotyping System (Catalog# TBS4035)

Sufficient For 250 RXNS

DESCRIPTION

Fast Zebrafish Genotyping System is designed for rapid DNA extraction and PCR amplification of from zebrafish tail or fin clip and other tissues. With this system, DNA extraction can be performed within 10 min.

The 2x Genotyping PCR Mix contains all reagents required for PCR, including Taq DNA polymerase, dNTPs, MgCl2, reaction buffer, tracking dye, density, PCR stabilizer and enhancer at optimal concentrations for consistent and efficient PCR amplification.

All you need is to add primers, DNA template and water, and the PCR products can be directly loaded onto the electrophoresis gel for genotype analysis.

APPLICATIONS

● Zebrafish Genotyping; DNA mutagenesis.

KIT CONTENTS

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

STORAGE CONDITIONS

The kit is shipped on ice, and stored at -20°C.
Shelf life of 12 months after receipt.

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 the electrophoresis gel.
High Fidelity: The optimal buffer condition and specific engineered Taq DNA polymerase have increased the efficiency of PCR amplification.

DNA EXTRACTION PROCEDURES

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

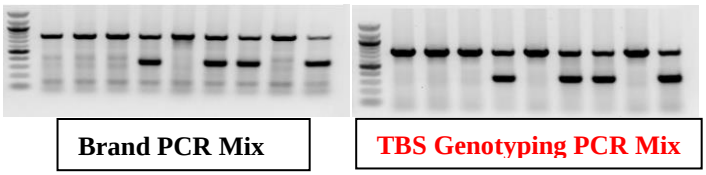
PCR PROCEDURES

For 20 µL/PCR reaction as below:

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

PCR conditions: 95°C, 2min → (95°C, 30S → 60°C, 30S → 72°C, 30S) → 25-35 cycles → 72°C, 5 min.

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



Comparison between TBS Genotyping PCR and Brand PCR Mix

RELATED PRODUCTS

2xSybr Green qPCR Mix (TBS4001)
2x Taqman Probe qPCR Mix 9 (TBS4002)
2x PCR Blue Mix (TBS4004)
2x PCR Red Mix kit (TBS4005)
Fast Mouse Genotyping System (TBS4033)
Fast Rat Genotyping System (TBS4034)
Fast DNA Extraction kit (TBS6008)

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

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