

2x PCR Red Mix (Catalog# TBS4004)

DESCRIPTION

The 2x PCR Red Mix is a ready-to-use solution containing 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. It simplifies PCR assembly, so that only primers, DNA template and water need to be added, and the PCR products can be directly loaded onto electrophoresis gel.

APPLICATIONS

- Routine PCR using genomic, viral and plasmid templates; RT-PCR;
- DNA and colony screening; DNA cloning and subcloning.
- Genotyping; DNA mutagenesis.

KIT CONTENTS

2x 1.0 mL of 2x PCR Red Mix
1x 2.0 mL of Nuclease-free water.
Sufficient reagent for 200 x 20 μ L

STORAGE CONDITIONS

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

KEY FEATURES

Convenient: the 2x PCR Red Mix kit contains all components for PCR amplification. All you need to do is to add primers, template, and water for PCR reaction.

Hazard-free Visualization: Dyes are non-toxic and non-mutagenic. Eliminating the need for ethidium bromide.

No Loading Dye Required: The PCR products can be directly loaded onto electrophoresis gel.

High efficiency: the optimal buffer condition and specific engineered hot start Taq DNA polymerase have increased the efficiency of PCR amplifications.

SUGGESTED PCR PROTOCOL

20 μ L/reaction
2x PCR Red Mix: 10 μ L
Forward Primer: 10-20 pmol
Reverse Primer: 10-20 pmol
DNA template: <2 μ L
Nuclease-free H₂O: up to 20 μ L

SUGGESTED PCR CONDITIONS

Step 1: 95°C for 7-10 minutes;
Step 2: 95°C for 10-30 seconds;
Step 3: 55-65°C for 30-90 seconds;
Step 4: 72°C for 30-120 seconds
Step 5: 25-35 cycles of steps 2-4
Step 6: 72°C for 5-10 minutes

RELATED PRODUCTS

Tail DNA Extraction kit (catalog# TBS6005)
Fast DNA Extraction kit (catalog# TBS6008)
2x PCR Hot Start Master (Catalog# TBS4002)
2x Genotyping PCR kit (catalog# TBS4003)
2x Regular PCR Kit (Catalog#TBS4004)

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.