Applied Biological Materials Inc.

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2X PCR Taq Plus MasterMix

Store at -20 °C

Cat. No.	Description	Quantity
G014	50ulX200 Rxns	5.0ml
G014-Dye	50ulX200 Rxns (dye)	5.0ml

Description

The PCR Taq Plus MasterMix is a ready-to-use mixture of high quality Taq Plus DNA Polymerase, deoxynucleotides, and 2X reaction buffer. It contains all the necessary reagents for amplification of DNA. The 2X PCR Taq plus MasterMix contains an inert red dye and a stabilizer which allows direct loading of the final products onto a gel for analysis.

To set up a PCR reaction: add DNA template, primers and water. PCR products, amplified up to 20kb in length with Taq Plus DNA Polymerase, generate a mixture of blunt ends and single base (A) 3' overhang. The error rate of this PCR amplification is $7.5x10^{-5}$ per nucleotide per cycle. The products can be used for direct T/A cloning, but its efficiency is not as high as PCR products amplified with Taq polymerase alone.

Features and Benefits

- Saves preparation time by combining Taq Plus DNA Polymerse, dNTPs and reaction buffer, in a ready-to-use mixture.
- Reduces the risk of contamination by decreasing the number of pipetting steps.
- Provides consistent reaction performance and results.

Storage Conditions

Keep at –20°C for long term storage. Taq 2X MasterMix is stable at 4°C for three months or for fifteen freeze-thaw cycles. For daily use, we recommend keeping an aliquot at 4°C.

Protocol

PCR reactions should be assembled in a DNA-free environment. DNA sample preparation, reaction mixture assemblage and the PCR process, in addition to the subsequent reaction analysis, should be performed in separate areas. The use of "clean", automatic pipettors designated for PCR and aerosol resistant barrier tips are recommended. Always keep the control DNA and other templates to be amplified isolated from the other components.

A control reaction, omitting template DNA, should always be performed to confirm the absence of contamination.

1. Add the following components to a sterile 0.2ml PCR tube sitting on ice.

Components	Volume
2X PCR Taq Plus MasterMix	25µl
DNA Template	~100ng
Forward Primer (10uM)	1µl
Reverse Primer (10uM)	1µl
ddH_2O	to 50µl

2. Mix contents of tube and centrifuge briefly.
3. Incubate tube in a thermal cycler at 94°C for 3 mins to completely denature the template.
4. Perform 30-40 cycles of PCR amplification as follows:

   Denature: 94°C for 30 sec
   Anneal: 55°C for 30 sec
   Extend: 72°C for 1 min/1kb template

5. Incubate for an additional 5 mins at 72°C and maintain the reaction at 4°C. The samples can be analysed with electrophoresis or stored at -20°C until use.
6. Analyze the amplification products by agarose gel electrophoresis and visualize by ethidium bromide or SafeView™ staining dyes. If 2X PCR Taq Plus MasterMix is used, load the samples directly with addiing additional loading dye. Use appropriate molecular weight standards.

This product is distributed for laboratory research only.
CAUTION: Not for clinical use.
For technical questions about this product, phone the ABM helpline at 1-866-571-7226 or visit our website at www.abmGood.com.

CERTIFICATE OF ANALYSIS