



DATA SHEET

2X PCR Taq MasterMix

Store at -20°C

Cat. No.	Description	Quantity
G013	2X PCR Taq MasterMix	5 ml
G013-dye	2X PCR Taq MasterMix with dye	5 ml

Product Description

The 2X PCR Taq MasterMix is a ready-to-use mixture of high quality Taq DNA Polymerase, deoxynucleotides, and reaction buffer in a 2X concentration. It contains all the necessary reagents for amplification of DNA along with an inert blue dye and a stabilizer which allow 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 that are amplified up to 6 kb in length with Taq DNA Polymerase contain a single base (A) 3' overhang.

Features and Benefits

- Saves preparation time by combining Taq DNA Polymerase, 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.

Shipping and Storage

Keep at -20°C for long term storage. 2X PCR Taq MasterMix and 2X PCR Taq MasterMix with dye are 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

All PCR experiments should be assembled in a nuclease-free environment. In addition, DNA sample preparation, reaction set-up and subsequent reaction(s) should be performed in separate areas to avoid cross contamination. 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 negative control reaction (omitting template DNA) should always be performed in tandem with sample PCR to confirm the absence of DNA contamination.

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

Components	Volume	Final Concentration
Template DNA	~100 ng	~2 ng/μl
Forward primer (10 μM)	1 - 2.5 μl	200 - 500 nM
Reverse primer (10 μM)	1 - 2.5 μl	200 - 500 nM
2X PCR Taq MasterMix/ with dye	25 μl	1X
Nuclease-free H ₂ O	up to 50 μl	-

- We recommend preparing a mastermix for multiple reactions to minimize reagent loss and enable accurate pipetting.
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 - 35 cycles of PCR amplification as follows:
 - Denature:** 94°C for 30 sec
 - Anneal:** 45 - 72°C for 30 sec
 - Extend:** 72°C for 1 min/1 kb template
 5. Incubate for an additional 5 mins at 72°C and maintain the reaction at 4°C. The samples can be stored at -20°C until use.
 6. Analyze the amplification products by agarose gel electrophoresis and visualize by ethidium bromide or SafeView™ (Cat No. G108) staining. If 2X PCR Taq MasterMix with dye is used, load the samples directly without adding additional loading dye. Use appropriate molecular weight standards.

*For laboratory research only. Not for clinical applications.
For technical questions, please email us at technical@abmgood.com
or visit our website at www.abmGood.com*

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