

Ready™ PCR Mix-Dye

(Cat# M1128-200, -1000; 2X PCR Master Mix with dye; Store at -20°C)

I. Introduction:

Ready™ PCR Master Mix-Dye provides all ingredients necessary for PCR in a premixed and optimized format that simplifies the PCR workflow. Utilizing different Taq DNA Polymerases, BioVision offers a variety of highly sensitive Master Mixes to accommodate a wide range of DNA templates and performance needs. BioVision's Ready™ PCR Master Mix is a ready-to-use mixture of high-quality Ready™ Taq DNA Polymerase, deoxynucleotides, and reaction buffer in a 2X concentration. It contains all the necessary reagents for the amplification of DNA. The Ready™ PCR Master Mix with dye contains an inert blue dye (Bromophenol Blue, with migration equivalent to 500 bp DNA fragment) 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.



II. Application:

- Routine PCR amplification of DNA templates up to 6 kb
- Suitable for a wide range of PCR assays
- TA cloning Microarray validation

III. Key Features:

- Robust PCR performance with great reproducibility
- Saves preparation time by combining Ready™ 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
- High sensitivity

IV. Package Contents:

Cat. No.	Quantity	Form
M1128-200	5.0 ml (200 Rxns)	5 X 1.0 ml vials
M1128-1000	25.0 ml (1000 Rxns)	25 X 1.0 ml vials

V. User Supplied Reagents and Equipment:

- PCR Tubes
- PCR Instrument
- Pipettes
- Water, Nuclease-free
- Primers (forward and reverse)
- Template DNA

VI. Shipment and Storage:

Upon arrival, the Ready™ 2X Master Mix-Dye should be stored at -20°C. 2X PCR Ready™ Master Mix 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. The Ready™ 2X Master Mix is stable for 1 year from the date of shipping when stored and handled properly. Briefly centrifuge small vials prior to opening.

VII. PCR Protocol:

1. 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" 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.
2. A negative control reaction (omitting template DNA) should always be performed in tandem with sample PCR to confirm the absence of DNA contamination.
3. Add the following components to a sterile 0.2 ml PCR tube sitting on ice.

Components	Volume	Final concentration
2X Ready™ PCR Mix-Dye	25 µl	1X
10 µM Forward Primer	1-2.5 µl	200-500 nM
10 µM Reverse Primer	1-2.5 µl	200-500 nM
Template DNA	~100 ng	~2 ng/ µl
Water, Nuclease-free	Up to 50 µl	-

4. Perform QPCR reactions using the following cycling program: We recommend preparing a Master Mix for multiple reactions to minimize reagent loss and enable accurate pipetting.
5. Mix contents of tube and centrifuge briefly.
6. Incubate tube in a thermal cycler at 94°C for 3 mins to completely denature the template.
7. Perform 30-35 cycles of PCR amplification as follows:
Denature: 94°C for 30 secs; Anneal: 45 - 72°C for 30 secs; Extend: 72°C for 1 min/1 kb template

8. 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.
9. Analyze the amplification products by agarose gel electrophoresis and visualize by ethidium bromide staining. If 2X PCR Taq Master Mix with dye is used, load the samples directly without adding additional loading dye. Use appropriate molecular weight standards.

VIII. Related Products:

BV Product Name	BV Cat. No.
M1127-200	Ready™ PCR Master Mix
M1127-1000	Ready™ PCR Master Mix
M1128-200	Ready™ PCR Master Mix-Dye
M1128-1000	Ready™ PCR Master Mix-Dye
M1129-200	Image Ready™ PCR Master Mix
M1130-200	Robust Ready™ PCR Master Mix
M1130-1000	Robust Ready™ PCR Master Mix
M1131-200	Robust Ready™ PCR Master Mix-Dye
M1131-1000	Robust Ready™ PCR Master Mix-Dye
M1132-200	Rigor™ PCR Master Mix
M1133-200	Rigor™ PCR Master Mix-Dye
M1134-200	Breeze™ PCR Master Mix
M1135-200	Breeze™ PCR Master Mix-Dye
M1136-200	Distant™ PCR Master Mix
M1137-200	Distant™ PCR Master Mix-Dye
M1138-200	Image Distant™ PCR Master Mix
M1139-200	Advance™ PCR Master Mix
M1140-200	Advance™ PCR Master Mix-Dye
M1141-200	Fire Start™ PCR Master Mix
M1142-200	Fire Start™ PCR Master Mix-Dye
M1143-200	Whole Blood PCR Master Mix
M1144-25	Plant Advance™ PCR Kit
M1145-100	Tissue Advance™ PCR Kit
M1146- M1153	DNA Polymerases

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