

# 5X Fluorescent PCR Master Mix TP1260



## Product information

ExcelTaq™ series

### 5X Fluorescent PCR Master Mix

**TP1260     200 RXN**

5X Fluorescent PCR Master Mix     1 ml × 2

## Storage

### Protected from light

4°C for 6 months

-20°C for 24 months

## Caution: Avoid Multiple Freeze/Thaw Cycles

## Description

The ExcelTaq™ 5X Fluorescent PCR Master Mix is a ready-to-use mixture for amplifying targeted DNA fragments. It is designed to serve as a master mix for virtually all PCR applications. This product is supplied as a 5X concentrated mixture containing all the essential ingredients for PCR with the exception of templates and primers. In addition, the mixture contains electrophoresis tracking dye (Bromophenol blue) and a safer fluorescent DNA staining dye, which enables the user to track the electrophoresis process in real time as well as eliminates the need for the staining process. The resultant PCR reaction mixture is sufficiently dense enough to be loaded directly into a TAE or TBE buffered gel for electrophoresis.

## Features

- 5'→3' DNA polymerase activity
- No detectable 3'→5' exonuclease (proofreading) activity
- Generates PCR products with 3'-dA overhangs
- High yield PCR
- High reproducibility
- Reduced pipetting errors
- For direct loading into electrophoresis analysis
- DNA bands can be visualized directly under UV or 470 nm blue light illumination

## Applications

- Routine PCR
- Colony PCR
- High throughput PCR
- Amplification of DNA fragments up to 8 kb
- Generation of PCR products for TA cloning
- DNA labeling

## Recommended PCR Condition

|                               |                   |
|-------------------------------|-------------------|
| Template                      | 1 – 150 ng        |
| Forward primer                | 0.1 – 0.5 $\mu$ M |
| Reverse primer                | 0.1 – 0.5 $\mu$ M |
| 5X Fluorescent PCR Master Mix | 10 $\mu$ l        |
| ddH <sub>2</sub> O            | to 50 $\mu$ l     |
| <hr/>                         |                   |
| Total volume                  | 50 $\mu$ l        |

## Recommended PCR Program

|          |           |                  |
|----------|-----------|------------------|
| 94°C     | 2 min     | } 25 ~ 40 cycles |
| 94°C     | 30 sec    |                  |
| 50~68°C* | 30 sec    |                  |
| 72°C     | 30 sec/kb |                  |
| 72°C     | 1 min     |                  |

\*Optimal PCR condition varies according to primers' thermodynamic properties.

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## Quality Control

### Functional Testing

ExcelTaq™ 5X Fluorescent PCR Master Mix is tested for performance in the polymerase chain reaction (PCR) in a 50 µl standard reaction condition to amplify a 665 bp gene from 10 pg of tested plasmid DNA. The resulting PCR product is visualized as a single band on an agarose gel under 470 nm of blue light illumination.

### Nuclease Assay

No contaminating endonuclease or exonuclease activity was detected using pUC19 incubated with ExcelTaq™ 5X Fluorescent PCR Master Mix (1:5 dilution) for 4 hours at 37°C.

### Residual Nucleotides Assay

No contaminating residual nucleotides were detected from ExcelTaq™ 5X Fluorescent PCR Master Mix by PCR assay.

### Other Information

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Caution: Not intended for human or animal diagnostic or therapeutic uses.

## Related Products

|        |   |
|--------|---|
| CK1000 | Champion E. coli Transformation Kit                         |
| CV1100 | GetClone PCR Cloning Vector II, 20 RXN                      |
| DM1160 | FluoroBand 50 bp Fluorescent DNA Ladder, 500 µl             |
| DM2360 | FluoroBand 100 bp+3K Fluorescent DNA Ladder, 500 µl         |
| DM3160 | FluoroBand 1 KB (0.25-10 kb) Fluorescent DNA Ladder, 500 µl |
| NS1000 | FluoroVue Nucleic Acid Gel Stain (10,000X), 500 µl          |
| RP1000 | ExcelRT Reverse Transcriptase, 20,000 U                     |
| TF1000 | SMO-HiFi DNA Polymerase, 100 U                              |
| TF3000 | G-HiFi DNA Polymerase, 100 U                                |
| TP1000 | ExcelTaq DNA Polymerase, 500 U                              |
| TP1200 | ExcelTaq 5× PCR Master Dye Mix, 200 RXN                     |
| TP2100 | ExcelTaq Blood Direct PCR Master Mix Kit, 200 RXN           |
| TP5000 | ExcelTaq Hot Start II DNA Polymerase, 500 U                 |
| TQ1110 | ExcelTaq 2× Q-PCR Master Mix (SYBR, ROX), 200 RXN           |
| VE0100 | B-BOX Blue Light LED epi-illuminator, AC 100-240V, 50/60Hz  |



**B-BOX™ Blue Light LED epi-illuminator**

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