



**SMOBIO**

Small Bio, Smart Tool

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## Product information

### ExcelTaq 5X Fluorescent PCR Master Mix

**TP1260**      **200 reactions**  
5X Fluorescent Master Mix 1 ml × 2

## Storage

### Protected from light

4°C      ≥ 6 months

-20°C    ≥ 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 ready-to-use master mix for virtually all PCR applications. The ExcelTaq 5X Fluorescent PCR Master Mix is supplied as a 5X concentrated ready-to-use mixture containing all the essential ingredients for PCR with the exception of template and primers. In addition, the mixture contains electrophoresis tracking dye (Bromophenol blue), as well as a safer fluorescent DNA staining dye which enables the user to track the electrophoresis process in real time as well as eliminating the need for staining process. The resultant PCR reaction mixture is sufficiently dense to be loaded directly into 1×TAE or 1×TBE buffer for electrophoresis.

## Features

- 5'→3' DNA polymerase activity
- None detectable 3'→5' exonuclease (proofreading) activity
- Generates PCR products with 3'-dA overhangs
- High throughput PCR
- High yield PCR
- High reproducibility, less pipetting error
- Loading directly into electrophoresis
- DNA band can be visualized directly under UV or 470 nm blue light illumination

## Applications

- Routine PCR amplification of DNA fragments up to 8 kb
- Generation of PCR product for TA cloning
- DNA labeling
- DNA sequencing

## Recommended PCR Condition

Template	1 – 150 ng
Forward primer	0.1 – 0.5 $\mu$ M
Reverse primer	0.1 – 0.5 $\mu$ M
5 $\times$ Master Mix	10 $\mu$ L
H <sub>2</sub> O	variable
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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	
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72°C	1 min	

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

## **Quality Control**

### **Functional Testing**

ExcelTaq 5X Fluorescent PCR Master Mix is tested for performance in the polymerase chain reaction (PCR) u in 50 µl standard reaction condition to amplify a 794 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 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 purified DNA Polymerase source by PCR assay.

## **Other Information**

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

## Related Products

- DM1160 FluoroBand 50bp Fluorescent DNA ladder, 500 $\mu$ l
- DM2160 FluoroBand 100bp Fluorescent DNA ladder, 500 $\mu$ l
- DM2360 FluoroBand 100bp +3K Fluorescent DNA ladder, 500 $\mu$ l
- DM3160 FluoroBand 1KB (0.25-10kb) Fluorescent DNA ladder, 500 $\mu$ l
- DM3260 FluoroBand 1KB Plus (0.1-10kb) Fluorescent DNA ladder, 500 $\mu$ l
- DM4160 FluoroBand XL 25KB Fluorescent DNA ladder Broad Range (up to 25kb), 500 $\mu$ l
- DL5000 FluoroDye DNA Fluorescent Loading Dye (Green, 6 $\times$ ), 1ml
- DL5001 FluoroDye DNA Fluorescent Loading Dye (Green, 6 $\times$ ), 1ml  $\times$  5
- DS1000 FluoroStain DNA Fluorescent Staining Dye (Green, 10,000 $\times$ ), 500 $\mu$ l
- DS1001 FluoroStain DNA Fluorescent Staining Dye (Green, 10,000 $\times$ ), 500 $\mu$ l  $\times$  5
- TP1000 ExcelTaq DNA Polymerase, 500 U  $\times$  1
- TP1100 ExcelTaq 5 $\times$  PCR Master Mix, 200 RXN
- TP1200 ExcelTaq 5 $\times$  PCR Master Dye Mix, 200 RXN
- TP2000 ExcelTaq Blood Direct DNA Polymerase, 5 U/  $\mu$ l, 500 U  $\times$  1

- TP2100 ExcelTaq Blood Direct PCR Master Mix Kit,  
200 RXN
- VE0100 B-BOX™ Blue Light LED epi-illuminator, AC  
100-240V, 50/60Hz



B-BOX™ Blue Light LED epi-illuminator