SMOBIO
Small Bio, Smart Tool

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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
- DNA sequencing

Recommended PCR Condition

Template	1 – 150 ng
Forward primer	0.1 – 0.5 µM
Reverse primer	0.1 – 0.5 µM
5X Fluorescent PCR Master Mix	10 µl
ddH_2O	to 50 µl
Total volume	50 µl

Recommended PCR Program

94°C	2 min	
94°C	30 sec	25 ~ 40 cycles
50~68°C*	30 sec	
72°C	30 sec/kb	
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) 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
CV1000	GetClone PCR Cloning Vector, 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
TF2000	Q-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

For research use only

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