SMOBIO
Small Bio, Smart Tool

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Product information

ExcelTaq™ series

5X PCR Master Dye Mix

TP1200	**200 RXN**	
	5X PCR Master Dye Mix	1 ml × 2

Storage

4°C for 6 months
-20°C for 24 months

Caution: Avoid Multiple Freeze/Thaw Cycles

Description

The ExcelTaq™ 5X PCR Master Dye 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 mixture contains all components for PCR with the exception of template and primers. This not only saves valuable time in the laboratory, but also reduces the number of pipetting and reagent handling errors. The PCR Master Dye Mix is supplied as a 5X concentrated ready-to-use mix, that is a mixture of recombinant *Taq* DNA polymerase, reaction buffer, $MgCl_2$, dNTP, enzyme stabilizer and PCR-friendly loading dye solution containing tracking dye (Bromophenol blue) enabling efficient amplification of template in PCR and allows the user to prepare a PCR reagent – loading dye master mix conveniently.

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
- Includes tracking dye for direct loading after PCR

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 µM
Reverse primer	0.1 – 0.5 µM
5X PCR Master Dye 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 PCR Master Dye 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 ethidium bromide-stained agarose gel.

Nuclease Assay

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

Residual Nucleotides Assay

No contaminating residual nucleotides were detected from ExcelTaq™ 5X PCR Master Dye 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
DM1100	ExcelBand 50 bp DNA Ladder, 500 µl
DM2100	ExcelBand 100 bp DNA Ladder, 500 µl
DM2300	ExcelBand 100 bp+3K DNA Ladder, 500 µl
DM3100	ExcelBand 1 KB (0.25-10 kb) 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
TP1100	ExcelTaq 5× PCR Master Mix, 200 RXN
TP1260	ExcelTaq 5× Fluorescent PCR Master 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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