SMOBIO
Small Bio, Smart Tool

www.smobio.com

Product information

ExcelTaq 5X PCR Master Dye Mix

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

Storage

4°C	≥ 6 months
-20°C	≥ 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
- 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

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 µM
Reverse primer	0.1 – 0.5 µM
5×Master Mix	10 µl
H_2O	Variable
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) using 1 unit of enzyme to amplify a 150 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 purified DNA Polymerase source by PCR assay.

Other Information

SMOBiO, Inc. claims all warranties with respect to this document, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. In no event shall SMOBiO, Inc. be liable, whether in contract, tort, warranty, or under any statute or any other basis for special, incidental, indirect, punitive, multiple or consequential damages in connection with or arising from this document, including but not limited to the use thereof.

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

Related Products

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
DM3200	ExcelBand 1 KB Plus (0.1-10 kb) DNA Ladder, 500 µl
DM4100	ExcelBand XL 25 kb DNA Ladder, Broad Range (up to 25 kb), 500 µl
DL5000	FluoroDye DNA Fluorescent Loading Dye (Green, 6×), 1ml
DS1000	FluoroStain DNA Fluorescent Staining Dye (Green, 10,000×), 500µl
TF1000	ExcelTaq SMO-HiFi DNA Polymerase, 5 U/ µl, 500 U × 1
TP1000	ExcelTaq DNA Polymerase, 500 U × 1
TP1100	ExcelTaq 5× PCR Master Mix, 200 RXN
TP1260	ExcelTaq 5× Fluorescent PCR Master Mix Kit, 200 RXN
TP2000	ExcelTaq Blood Direct DNA Polymerase, 5 U/ µl, 500 U × 1
TP2100	ExcelTaq Blood Direct PCR Master Mix Kit, 200 RXN
VE0100	B-BOX™ Blue Light LED epi-illuminator, AC 100-240V, 50/60Hz

For research use only
2013 ver. 1.2.0