

Lot No.

Description

- LaboPass™ IP-Taq PCR Mastermix is a 2x concentrated, ready to use reaction mixture containing optimized amount of IP-Taq Polymerase, dNTPs, reaction buffer, loading dye and stabilizers. This mixture is designed for ease of use, greater reproducibility and time savings. The user simply adds template DNA, primers, and DW to start the reaction.
- LaboPass™ IP-Taq DNA Polymerase is a thermostable DNA polymerase cloned from *Thermus aquaticus* and a recombinant form expressed in *E.coli*. This enzyme possesses 5' to 3' exonuclease activity, but lacks a 3' to 5' exonuclease proofreading activity. The enzyme purified with high purity contains a very low level of contaminating *E.coli* DNA, which minimizes false-positive results, especially when the amplicon is bacterial sequence (e.g. 16S rRNA).

Specifications

Components	IP-Taq Polymerase, dNTPs, reaction buffer, loading dye stabilizers
Type	Ready-to-use (Only DNA template and primers are needed)
Reaction volume	20~100 µl (PCR Mastermix is a 2x concentrated)

Store at -20°C

Storage and Stability

LaboPass™ PCR Mastermix is stable for 1 year when stored at -20°C.

Applications

- General PCR for detection
- Colony PCR
- A-tailing for TA-cloning

Quality Control

Each lot of IP-Taq polymerase, reaction buffer and dNTPs is tested for contamination such as *E.coli* genomic DNA, nicking, endonuclease and exonuclease.

Standard Reaction

Components	Volumes (µl)
2X IP-Taq PCR Mastermix	10 µl
Forward Primer (10~50 pmoles/µl)	1 µl
Reverse Primer (10~50 pmoles/µl)	1 µl
DNA Template (Variable*)	1~2 µl
Distilled water	6~7 µl
Total reaction volume	20 µl

* Amount of DNA template

- Eukaryotic genomic DNA 10-200 ng
- Prokaryotic genomic DNA 1-50 ng
- Purified homogeneous DNA <5 ng
(e.g. plasmid, lambda DNA, etc)
- cDNA : 0.5-10% of RT reaction volume

General Thermo-Cycler protocol

Step	Time	Temperature
Initial denaturation	1-5 min	94-95°C
25-35 Cycles:		
Denaturation	10-25 sec	94-95°C
Annealing	10-25 sec	45-70°C
Extension	60 sec/1 kb	68-72°C
Final extension	5 min	68-72°C

* Note

- Vortex all solutions and spin down carefully before using
- Dispense on ice and spin down again