LaboPass™
IP pro-*Taq* DNA polymerase

Cat. No. CMT2002

COSMO GENETECH

Lot No.

Contents

IP pro-*Taq* DNA Polymerase (2.5 U/μl)	250 U X 2
10X IP pro-*Taq* Buffer	1 ml X 2
5X Tuning Buffer	1 ml
dNTPs (Each 2.5 mM)	0.5 ml X 2
Store at -20˚C	

Description

Labopass™ IP pro-*Taq* DNA Polymerase is a modified version of *Taq* polymerase which improves the reliability and specificity of PCR reaction. The IP pro-*Taq* Polymerase has proofreading activity and is more thermostable than wild type *Taq* DNA polymerase, which allows for the amplification of long length up to 20 kb with high accuracy. The amplified products contain a mixture of blunt ends and 3' A-plus ends.

Applications

- General PCR for detection
- Long range PCR
- Real-time PCR
- TA-cloning

Unit definition

One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTPs into acid-insoluble form in 30 min at 72˚C.

Storage buffer

20 mM Tris-HCl (pH8.0), 100 mM KCl, 0.1 mM EDTA, 1 mM DTT, 0.5% Tween-20, 0.5 % NP-40, 50 % glycerol

Purity

Nicking, endonuclease and exonuclease activity were not detected after the incubation of 0.5 μg of supercoiled pUC19, λDNA or HindIII digested λDNA with 10 units of this enzyme for 4 hour at 37˚C or 72˚C.

10X IP pro-*Taq* buffer (with $MgCl_2$)

Labopass™ IP pro-*Taq* DNA Polymerase is supplied with an optimized reaction buffer for improved PCR yield.

5X Tuning buffer

Tuning buffer can improve PCR efficiency in reaction using problematic template DNA containing high GC contents or stable secondary structure. Thus, it is advantageous to amplify complicated long target sequences.

Standard reaction (50 μl)

Components	Volumes (μl)
10X IP pro-*Taq* Buffer	5 μl
dNTPs (Each 2.5 mM)	4 μl
5X Tuning buffer	10 μl (optional)
Forward Primer	10 ~ 50 pmoles
Reverse Primer	10 ~ 50 pmoles
DNA Template	variable *
LaboPass™ IP pro-*Taq* DNA Polymerase	0.5 ~ 2 units
Distilled water	up to 50 μl

*** Amount of DNA template**

- Eukaryotic genomic DNA 10-200 ng
- Prokaryotic genomic DNA 1-50 ng
- Purified homogeneous DNA (e.g. plasmid, lambda DNA. etc) <5 ng

For laboratory use only

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