GCC BIOTECH

An ISO certified and DSIR approved lab facility

Hi-Prime Taq DNA Polymerase

Description

Hi-Prime Taq DNA Polymerase is an optimized blend of Taq DNA polymerase and high fidelity DNA polymerases from Pyrococcus species in presence of specially formulated buffer which supports PCR amplification from critical amplicons. Presence of high fidelity DNA polymerases from Pyrococcus species in optimized ratio and the enhanced buffer system make Hi-Prime Taq DNA polymerase an excellent choice for PCR amplification from natural isolates. The 3'- 5' exonuclease activity of the high fidelity DNA Polymerase increases the fidelity and robustness in amplification by Taq DNA Polymerase, even from very low copy number of template. Hi-Prime Taq DNA polymerase comes with a specially formulated buffer, which allows amplification up to 12kb or more.

Applications

- PCR from natural isolates.
- PCR from diagnostic samples.
- PCR from forensic samples.
- PCR for high GC content amplicons.
- PCR from soil DNA
- Multiplex PCR
- Long amplicon PCR

Unit definition

One unit of Hi Prime Taq DNA Polymerase is the amount of enzyme required to incorporate 10 nmoles of deoxyribonucleotide into DNA in 30 min at 74°C.

Features

- A perfect blend of two different DNA polymerases for the robust yield in PCR reaction of higher sized fragments
- Unique buffer formulation to facilitate improved sensitivity, specificity, and yields for long range PCR (12 Kb)

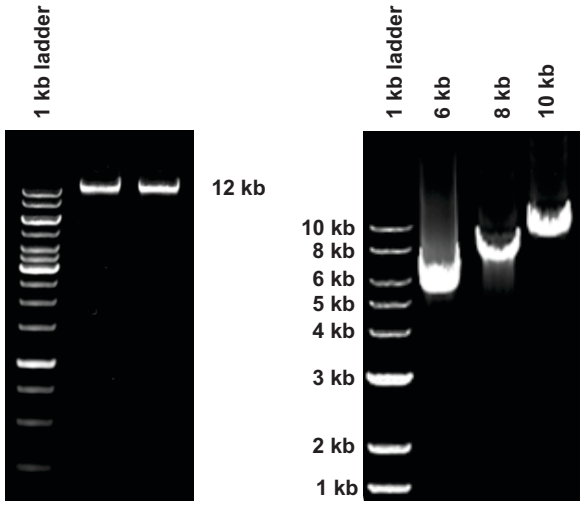

Fig:A Fig:B

Fig:A PCR amplification using Hi- Prime *Taq* DNA polymerase.

1st Lane: molecular size marker - 1 kb DNA Ladder. 2nd and 3rd lane: 12 kb PCR amplification reactions, using 10X Prime Taq reaction Buffer with 0.2 mM dNTPs and 1.25 U respective DNA polymerase in 50 µl reaction volume. 5 µl loaded for analysis.in 1% agarose gel.

Fig:B Amplification of different regions from lambda DNA with Hi-Prime *Taq* DNA polymerase, 5 µl of PCR product were loaded on 1% agarose gel.

G7116, G7116A, G7116B

Hi-Prime *Taq* DNA polymerase,10x buffer and $MgCl_2$