

pfu DNA Polymerase

Catlog Number: IEC-HMM-0037

• Basic Information

Source: Recombinant E.coli

MV: 90 kDa

Purity: ≥95%

Buffer: 50 mM Tris-HCl (pH8.2), 0.1 mM EDTA, 1 mM DTT, 0.1% (v/v) Tween-20, 0.1% (v/v) NP-40, 50% (v/v) glycerol

Instructions: 1. Pfu DNA polymerase possesses 3'→5' exonuclease activity, resulting in a lower extension rate (0.5–0.6 kb/min) compared to Taq DNA polymerase (1 kb/min). The extension time depends on the length of the amplified product. Additionally, due to the 3'→5' exonuclease activity, pfu DNA polymerase may degrade primers, so pfu DNA polymerase should be added last when preparing the reaction system.

2. When amplifying with pfu DNA polymerase, higher primer purity is required. The substrate length should be greater than 18 bp, with a T_m value between 55–80°C, and primer concentration between 0.1–0.5 μM, slightly higher than Taq DNA Polymerase.

3. For templates with high GC content, the denaturation temperature can be increased to 98°C without affecting DNA polymerase activity.

• Applications

pfu DNA polymerase is a thermostable DNA polymerase with 5'-3' DNA polymerase activity and 3'-5' exonuclease activity, capable of correcting base mismatches generated during DNA amplification.

• Specification

3 U/μL

• Storage & Transportation

-20°C

