# Pfu Plus DNA Polymerase

**Cat. No.** CMC01 **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | |
| **Description** | Pfu Plus DNA Polymerase is a thermostable enzyme of approximately 90kDa isolated from Pyrococcus furiosus. The enzyme replicates DNA at 75oC, catalyzing the polymerization of nucleotides into duplex DNA in the 5´-3´ direction in the presence of magnesium. Pfu DNA Polymerase also possesses 3´-5´ exonuclease (proofreading) activity. Base misinsertions that may occur during polymerization are rapidly excised by the proofreading activity of the polymerase. Consequently, Pfu DNA Polymerase is recommended for use in PCR and primer extension reactions that require high-fidelity synthesis. Pfu DNA Polymerase-generated PCR fragments are blunt-ended. |
| **High Fidelity** | Pfu Plus DNA Polymerase exhibits the lowest error rate of any thermostable DNA polymerase. |
| **Performance Guarantee** | PCR systems, enzymes and reagents are proven in PCR to ensure reliable, highperformance results. If you are not completely satisfied with any our PCR product, we will send a replacement or refund your account |
| **Applications** | Pfu Plus DNA Polymerase is recommended for use in PCR, primer extension reactions and other applications that demand high fidelity. |
| **Unit Definition** | One unit is defined as the amount of enzyme required to catalyze the incorporation of 10nmol of dNTPs into acid-insoluble material in 30 minutes at 75℃. |
| **Quality Control Tests** | PCR (activity), SDS-PAGE (purity), endonuclease/nickase. |

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| **Storage** | Pfu Plus DNA Polymerase in 50mM Tris-HCl (pH 8.2 at 25oC), 0.1mM EDTA, 1mM DTT, 50% glycerol and 0.05% CHAPS should be stored at -20oC. |
| **10X Reaction Buffer** | 200mM Tris-HCl (pH 8.8 at 25℃), 100mM KCl, 1.0% Triton X-100 and 1mg/ml nuclease-free BSA. |

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