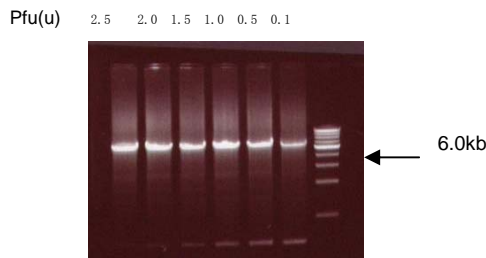


Product: Pfu-Plus DNA Polymerase, recombinant
Catalog #: 12-4424
Amount: 500U

DESCRIPTION:

Recombinant Pfu-Plus DNA Polymerase is an enhanced version of Pfu DNA polymerase for high-fidelity PCR. Recombinant Pfu-plus DNA polymerase is a mixture of cloned *pyrococcus furiosus* DNA polymerase and **dUTPase** that enhances PCR product yields and increases target length capability without altering DNA replication fidelity (figure1). Pfu-plus DNA polymerase can be used to amplify complex genomic DNA targets up to 19kb and vector targets up to 15kb in length. One of the most thermostable DNA polymerases known

**SOURCE:**

Escherichia coli

UNIT DEFINITION:

One unit of enzyme catalyzes the incorporation of 10 nanomoles of deoxyribonucleotides (dNTP) into a polynucleotide fraction (adsorbed on DE-81) in 30min at 72°C

CONCENTRATION:

2.5 U/μl

PURITY:

Extensively tested for PCR applications

BUFFER:**Storage Buffer:**

20mM Tris-HCl (pH 8.2), 1mM DTT, 0.1mM EDTA, 100mM KCl, 0.1% Nonidet P40, 0.1% Tween 20 and 50% glycerol

10X PCR Buffer with MgSO₄

200mM Tris-HCl (pH 8.8 at 25°C), 100mM (NH₄)₂SO₄, 100mM KCl, 1% Triton X-100, 1mg/ml BSA, 20mM MgSO₄

APPLICATION:

Ideal for high-fidelity amplification

3'-5' exonuclease activity provides a low error rate

Lack of extendase activity means no unwanted 3' overhangs

Optimal for blunt-end PCR cloning

Optimum temperature near 75°C

95% active after 1-hour incubation at 98°C

STORAGE:

-20°C (aliquot), avoid freezing and thawing cycles

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