Phu-50 High Fidelity Polymerase

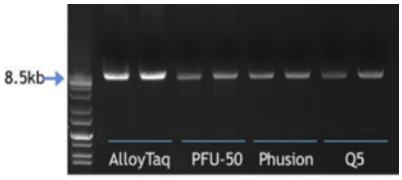
Enzymes and Reagents

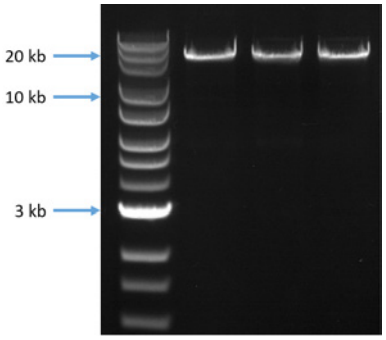
PCR | qPCR | RT | Kits | Oligonucleotides

Performance

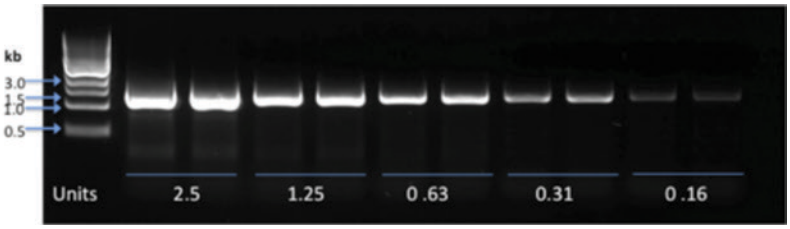
Empirical Bioscience's Phu-50 Polymerase is a genetically modified Pyrococcus furiosus enzyme that also contains inherent 3'-5' proofreading capability which increase the fidelity of the enzyme to 50X that of Taq DNA Polymerase.

Due to its increased processivity and fidelity, Phu-50 High Fidelity Polymerase is ideal for long-range PCR amplification, GC rich templates, cloning, mutagenesis, sequencing, and fast PCR due to shorter elongation time requirements. Phu-50 is an extremely stable enzyme at high temperatures and is free of contaminating endonucleases and exonucleases.





Empirical's Phu-50 can amplify long targets: *(Left)* Phu-50 enzyme was compared to AlloyTaq, Thermo's Phusion, and NEB's Q5 enzymes by PCR of a 8.5kb fragment from the human beta globin gene. *(Right)* Phu-50 was used to amplify an 18.3kb fragment from the Human Albumin gene. The experiment was performed in triplicate and analyzed on a 0.4% agarose gel.



Empirical's Phu-50 is sensitive: Decreasing units of Phu-50 enzyme were used to amplify a 1.3kb fragment from the human beta globin gene.

Features

- 50X Fidelity of Taq
- Increased Processivity and Sensitivity

Applications:

- High fidelity PCR
- Long amplification up to 8.5kb
- GC rich templates
- Fast PCR (30sec/kb)

Item Number	Units
PHU-50-250	250
PHU-50-500	500
PHU-50-1000	1000
PHU-50-5000	5000

Storage and Handling:
Store at – 20°C upon arrival.

Related Products

- EasyLoad Low Range DNA Ladder
- EasyLoad Mid Range DNA Ladder
- EasyLoad High Range DNA Ladder
- UltraPure dNTP Solution Mix, 10mM each
- UltraPure dNTP Solution Mix, 100mM each
- 6x MeanGreen Loading Dye

Empirical™ bioscience

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