Product:	**Recombinant Pfu DNA Polymerase**
Catalog #:	**PFU-01**
Quantity:	**500U**
Concentration:	**5 U/µl**
Specific Activity:	**15,000U/mg**

Description:	Recombinant Pfu DNA polymerase is produced in E. coli utilizing a gene isolated from the hyperthermophilic marine archaebacterium *Pyrococcus furiosus*. This multifunctional thermostable enzyme possesses both 5'- to 3'- DNA polymerase and 3'- to 5'- exonuclease activity, resulting in a 12-fold increase in fidelity during DNA synthesis compared to conventional Taq DNA polymerase. UBI's Recombinant Pfu DNA Polymerase has an optimal extension temperature between 72°C and 78°C. The enzyme remains more than 95% active following a one hour incubation at 95°C.
10 x Reaction Buffer:	200 mM TrisHCl (pH 8.8) 100 mM KCl 100 mM $(NH_4)_2$ SO_4 20 mM Mg SO_4 1% Triton X-100 1 mg / ml nuclease-free Bovine Serum Albumin (BSA)
Unit Activity:	One unit of activity is defined as the amount of Recombinant Pfu DNA polymerase required to incorporate 10nM of [H]TTP into an acid-insoluble form after 30 minutes at 72°C.
Contaminants:	Recombinant Pfu DNA polymerase has been assyed for the presence of detectable non-specific nuclease activity and DNA contamination and has been deemed nuclease and DNA free.
Shipping Conditions:	Recombinant Pfu DNA polymerase is shipped frozen in the presence of dry ice, but is stable and maintains full activity if stored at room temperature.
Storage Conditions:	Recombinant Pfu DNA polymerase is stored in 50mM Tris-HCL (pH8.2), 1mM dithiothreitol (DTT), 0.1mM EDTA, 0.05% CHAPS and 50% (v/v) glycerol. Recombinant Pfu DNA polymerase although stable at room temperature should be stored at -20°C on receipt for maximal life.

UBI
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