



Creative Enzymes

Diagnostic Enzymes

High-Fidelity DNA Polymerase Plus

Product Information

Cat#	POL-012
Storage	Store at -25 ~ -15°C for 1 year.
Features	<p>Ultra-high fidelity: 83 times higher fidelity than Taq enzyme;</p> <p>High specificity: Hot-start enzyme enhances reaction specificity, resulting in a single target band;</p> <p>Fast amplification rate: 30 sec/kb, as fast as 10 sec/kb;</p> <p>High sensitivity: Can amplify templates as low as 1 pg;</p> <p>Good stability: Can be stored at room temperature for 7 days and subjected to 50 freeze-thaw cycles without affecting product performance;</p> <p>Easy to handle: Can be thawed and loaded at room temperature;</p>
Description	<p>This product is based on Pyrococcus Furiosus DNA Polymerase and has been genetically engineered. This enzyme possesses both 5'→3' DNA polymerase and 3'→5' exonuclease activities, with a fidelity 83 times that of Taq DNA polymerase and 9 times that of ordinary Pfu DNA polymerase. The enzyme solution contains two monoclonal antibodies that inhibit polymerase and 3'→5' exonuclease activities at room temperature, enabling simple and highly specific hot-start PCR, significantly improving the detection rate and product specificity. The addition of an extension factor to the enzyme solution gives it the ability to amplify long fragments, up to 13 kb in length. This product is equipped with an optimized buffer, making it suitable for amplifying complex templates. The amplified product has blunt ends.</p>
Applications	Gene cloning; complex DNA template amplification; high-throughput library construction
Specification	10 U; 100 U; 500 U; 1000 U
Activity Definitions	Using activated salmon sperm DNA as a template/primer, at 74°C for 30 min, the amount of enzyme that ingests 10 nmol of complete nucleotides as acidic insoluble matter is defined as 1 activity unit (U).

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