Tinzyme Co., Limited

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Super Fidelity DNA Polymerase

Product Number: PC06

Shipping and Storage

Store at -30~-15°C and transport in ice bags at ≤ 0 ° C to avoid repeated freeze-thaw cycles.

Components

Component	PC06
Super Fidelity DNA Polymerase(5 U/μl)	500U

Description

Super Fidelity DNA Polymerase is a new generation of ultra fidelity DNA polymerase modified from Pfu DNA Polymerase, which has greatly improved its long segment amplification ability, amplification specificity, and amplification yield. By optimizing the reaction buffer and using simple templates such as lambda DNA and plasmids, fragments up to 40kb can be effectively amplified; Using complex templates such as genomic DNA, fragments up to 20kb can be amplified; The use of cDNA templates can effectively expand fragments up to 10kb in length. Its mismatch rate is 1/53 of that of ordinary Taq enzymes and 1/6 of that of Pfu enzymes, and the amplification speed can reach 15-30 seconds/kb. High fidelity and excellent amplification efficiency make Super Fidelity DNA Polymerase suitable for direct PCR of bacterial, fungal, plant tissue, animal tissue, or whole blood samples, with amplification products being flat ended.

Application

This product is suitable for PCR reactions using genomic DNA, cDNA, Plasmid DNA, and crude samples as templates.

1. High fidelity PCR and vector construction;
2. Gene cloning;
3. Gene directed mutagenesis;
4. High throughput PCR and sequencing.

Unit definition

Using activated salmon sperm DNA as a template/primer, the activity of an acidic insoluble substance is defined as one active unit (U) when 10 nmol of whole nucleotide is ingested within 30 minutes at 74 ℃.

Note

1. Please use high-quality templates.
2. Do not use dUTP and primers and templates containing uracil.
3. If necessary for the experiment, the usage of Super Fidelity DNA Polymerase can be increased appropriately, but it is recommended not to exceed 2 U of enzyme in a 50μl system.
4. Super Fidelity DNA Polymerase has strong proofreading activity. Therefore, if amplification products require TA cloning, DNA purification must be performed before adding A.
5. To prevent the degradation of primers due to the proofreading activity of Super Fidelity DNA Polymerase, please add polymerase at the end when preparing the reaction system.