



T5 Exonuclease

Product Number: TE035

Shipping and Storage

-20°C.

Components

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T5 Exonuclease (10U/μL)	100μL
10×T5 Exonuclease reaction buffer	200μL
ddH ₂ O	1mL

Description

T5 Exonuclease is encoded by the D15 gene of T5 bacteriophage and can degrade DNA along the 5'-'3' direction. It can be digested from both the 5' end and the cleavage or gap of linear or circular double stranded DNA, but cannot degrade supercoiled DNA. The single stranded endonuclease activity of this enzyme can be inhibited by low concentrations of Mg²⁺ less than 1mM.

Application

1. Degradation of ssDNA and dsDNA;
2. Degradation of plasmid DNA with cleavage gaps;
3. When degrading single stranded and double stranded DNA, it can preserve the supercoiled plasmid DNA.

Features

1. Efficient and sensitive: Short degradation time, high degradation rate for single and double stranded DNA fragments, and sensitive response.
2. High quality: fully meets the experimental requirements for degrading single and double stranded DNA fragments.
3. Unique formula of 10 × Reaction Buffer: makes substrate degradation reaction more stable, sensitive, and efficient.

Quality assurance

This enzyme has undergone strict quality control testing, multiple column purifications, and SDS-PAGE gel detection, which only shows a clear and single target band, ensuring that the product has the highest activity and purity. PCR method detection shows no residual E. coli DNA and no contamination of nucleic acid endonucleases.

Definition of Activity

The enzyme required to produce 1nmol acid soluble deoxyribonucleotide from double stranded DNA in a 50μL reaction system at 37°C for 30 minutes is one unit.

Usage recommendations

1. This enzyme needs to be stored and used at low temperatures;
2. If a large amount of substrate needs to be digested, please extend the substrate digestion time appropriately;
3. This product can still effectively digest substrates after being diluted 2-3 times.

Application Examples

Under the conditions of enzyme dosages of 0.2U, 0.1U, 0.067U, and 0.05U, the digestion results of 500ng double stranded DNA fragments were obtained by soaking in a 37°C bath for 3 hours.

1. Lane M: DL2000 Plus;
2. Lane 1: Enzyme dosage of 0.2U; Lane 2: Enzyme dosage of 0.1U;
3. Lane 3: Enzyme dosage of 0.067U; Lane 4: Enzyme dosage of 0.05U;
4. Lane 5: Enzyme dosage 0U.

