

## Lambda Exonuclease

**Product Number: S120308**

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### Shipping and Storage

Wet ice transportation; -Stored at 20°C, with a validity period of 12 months.

### Component

Component	1000U
Lambda Exonuclease	200μL
10×Reaction Buffer	1mL

### Description

Lambda Exonuclease, also known as lambda Exonuclease or lambda exonuclease, is a 5'-3' deoxyribonuclease derived from the exonuclease gene of lambda bacteriophages and recombinant expressed in Escherichia coli. It can specifically hydrolyze the 5' end phosphorylated strand in double stranded DNA along the 5' -3' direction, but has low enzymatic activity for single stranded DNA and non phosphorylated dsDNA at the 5' end, and cannot be digested from DNA cuts or gaps.

### Application

Production of single stranded PCR products, analysis of DNA single stranded conformational polymorphism, rolling ring amplification, PCR product cloning, etc.

### Features

- Source:** Derived from λ bacteriophage, recombinant expressed by Escherichia coli.
- Enzyme activity definition:** The amount of enzyme required to hydrolyze 10nmol of acid soluble deoxyribonucleotide from a double stranded DNA substrate in a 50μL reaction system at 37°C within 1 minute is defined as one enzyme activity unit.
- Purity and concentration:** SDS-PAGE detection shows a purity of ≥ 95%; Endogenous nucleic acid residue < 1 pg/μL (qPCR detection); Enzyme activity is 5U/μL.
- Inactivation or inhibition:** Incubate at 75°C for 10 minutes to inactivate.
- Enzyme storage buffer:** 25mM Tris HCl, 50mM NaCl, 1 mM DTT, 0.1mM EDTA, 50% Glycerol, pH 8.
- 10×Reaction Buffer:** 670mM Glycine-KOH, 25mM MgCl<sub>2</sub>, 500μg/mL BSA, pH 9.4.

### Protocol

- Refer to the table below to prepare the reaction system:

Component	Volume
DNA sample	2-5μg
Nuclease-Free water	To 50μL
10×Reaction Buffer	5μL
Lambda Exonuclease	1μL

- After mixing the above system, centrifuge at low speed to allow the liquid to settle to the bottom of the tube;
- Incubate at 37°C for 30 minutes, and the reaction can be terminated by adding a final concentration of 10mM EDTA or incubating at 75°C for 10 minutes;
- The processed sample can be subjected to electrophoresis analysis or further purification.

### Note

- Enzymes should be stored in an ice box and immediately stored at -20°C after use.

**For Research Use Only**



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2. For your safety and health, please wear lab coats and disposable gloves when operating.