

T5 Exonuclease (10 U/ μ L)

Product Description

T5 Exonuclease is a double-stranded DNA-specific exonuclease and single-stranded DNA endonuclease. It can initiate digestion from the 5' end of single- or double-stranded DNA, as well as from gaps or nicks in linear or circular double-stranded DNA, but it does not degrade supercoiled double-stranded DNA. Therefore, T5 Exonuclease is widely used for removing incompletely ligated products from circularized dsDNA, degrading denatured DNA in alkaline extraction plasmids, degrading linear and nicked DNA in plasmid samples, and seamless cloning (Gibson assembly), etc.

Specifications

Cat.No.	14538ES80/14538ES90
Size	1,000 U/5,000 U
Concentration	10 U/ μ L
Unit Definition	One unit is defined as the amount of enzyme required to effect a change of 0.00032 A260 nm per minute at 37°C in the buffer

Components

Components No.	Name	14538ES80	14538ES90
14538-A	T5 Exonuclease (10 U/ μ L)	100 μ L	500 μ L
14538-B	T5 Exonuclease Buffer(10 $\times$)	1 mL	1 mL

Storage

This product should be stored at -25~-15°C for 3 year.

Product Application

1. In-Fusion Cloning.
2. Degradation and alkaline lysis extraction of denatured DNA from plasmids.

Instructions

1. Reaction system

Components	Volume (μL)
DNA	1 μg
T5 Exonuclease Buffer(10×)	5 μL
T5 Exonuclease*	1 μL
ddH ₂ O	Up to 50

* T5 Exonuclease enzyme should be added last.

2. Reaction conditions: Gently mix and react at 37°C for 30 minutes.

3. Add at least 11 mM EDTA or DNA Loading buffer containing SDS (with a final concentration of 0.08% SDS) to terminate the reaction.

4. Take out 10 μL of the reaction product, add 2 μL of 6×DNA Loading Buffer, and then proceed with 2% agarose gel electrophoresis for detection.

Notes

1. Avoid bubbling or vigorous stirring, vortexing, and other operations to prevent inactivation of this product.
2. This product is for research use only.
3. Please wear the necessary PPE, such lab coat and gloves, to ensure your health and safety.