Recombinant ST DNase I

Cat. No.: HYJ239

Product Description

This product is an engineered variant of DNase I, which exhibits significantly improved salt tolerance compared to the wild-type enzyme. It can fully digest DNA in 300 mM salt. This product is free from RNase contamination.

Components

Components	1KU
Recombinant ST DNase I (2 U/μL)	500 μL
10× ST DNase I Buffer	1.25 mL

Storage

Store at -25 to -15°C. Valid for 2 years.

Activity Definition

One unit is defined as the amount of enzyme which will completely degrade 1 μg of pUC19 DNA in 10 minutes at 37℃ in DNase I Reaction Buffer.

Quality Control

1. Protein Purity

The enzyme is ≥90% pure as determined by SDS-PAGE analysis using Coomassie Blue staining.

2. RNase Activity

A 10 μl reaction containing 500 ng of total RNA and 2 U of Recombinant ST DNase I incubated for 1 hour at 37 ℃ results in >90% of the substrate RNA remains intact as determined by agarose gel electrophoresis.

Instructions

1. Digestion of genomic DNA in a sample for RT-PCR

1) Set up the following reaction on ice:

Components	Volume
RNA	1 μg
10× ST DNase I Buffer	1 μL
Recombinant ST DNase I (2 U/μL)	0.5 μL
Nuclease-Free Water	Up to 10 μL

2) Incubate for 15 min at 37℃.

3) Column based purification or Phenol/chloroform treatment.

2. Degradation of DNA template in transcription reactions

1) 1 U Recombinant ST DNase I was added to the transcription reaction system of 1 μg template DNA. The amount of enzyme can be optimized according to actual needs.

2) Incubate for 15 min at 37℃.

3) Column based purification or Phenol/chloroform treatment.

Notes

1. When performing RNA-related experiments, be careful to maintain an RNase-free environment.
2. Avoid violent shocks when preparing samples.
3. For your safety and health, please wear a lab coat, disposable gloves, and a mask while conducting the experiment.