

Product components

Components	Component number	Concentration	Size 1,000 U
Exonuclease VIII, truncated	RM20569	10,000 U/mL	100 µL
10X ABuffer S	RM20147	10X	1.25 mL

Product Description

Exonuclease VIII, truncated is a double-stranded DNA-specific exonuclease that degrades linear double-stranded DNA in the 5' to 3' direction. The enzyme does not digest supercoiled dsDNA.

Product Source

The Exonuclease VIII, truncated gene is expressed and purified from *E. coli*.

Storage

Store at -20°C and avoid repeated freeze-thaw cycles.

Unit Definition

One unit is defined as the amount of enzyme required to produce 1 nmol of acid-soluble deoxyribonucleotide from 0.15 mM sonicated [³H]-DNA in a total reaction volume of 50 µL in 30 minutes at 37°C in 1X ABuffer S.

Reaction Conditions

1X ABuffer S, Incubate at 37°C

1X ABuffer S

20 mM Tris-acetate, 50 mM Potassium Acetate, 10 mM Magnesium Acetate, 1 mM DTT, pH 7.9 @ 25°C

Heat Inactivation

70°C for 15 minutes

Operation Description

1. Set-up the following reaction on ice, noting that the enzyme should be added at the end and then gently mix the reaction by pipetting up and down and microcentrifugation.

Components	50 µL Reaction
10X ABuffer S	5 µL (1X)
DNA	Variable (up to 1µg)
Exonuclease VIII, truncated	1 µL (10 U)
Nuclease-Free-Water	up to 50 µL

2. Incubate at 37°C for 30 minutes.

3. Terminate reaction by adding EDTA to at least 11 mM.
4. Heat Inactivation 70°C for 30 minutes.
5. To purify digested samples, we recommend using one of the following steps:
 - ① Column clean up or Agarose gel recovery.
 - ② Performing a phenol/chloroform extraction followed by ethanol precipitation.

Note: For more precise results or partial digestion reactions, it is recommended to determine the specific enzyme-to-substrate ratio through titration of the enzyme and substrate.