DNase I (RNase-Free)

Cat. No. E091

Store at -20°C.

Product Description

DNase I is a non-specific endonuclease derived from bovine pancreas that catalyzes the cleavage of phosphodiester bonds in single/double-stranded DNA, chromatin, and RNA:DNA hybrids to generate di-and/or oligonucleotide (5'-phosphorylated and 3'-hydroxylated) end-products. This product is RNase free and can be used in RNA applications.

Product Component	Quantity	Part No.
DNase I (RNase-Free)	200 U (100 µl)	E091-1
10X DNase I Reaction Buffer	1.0 ml	P114

Unit Definition

One unit is defined as the amount of enzyme which will completely degrade 1 µg of pBR322 DNA in 10 mins at 37 °C. Complete degradation is defined as the reduction of the majority of DNA fragments to tetranucleotides or smaller.

Protocol

1. To remove DNA contamination, RNA may be treated with DNase I by preparing the following reaction:

Product Component	Volume
RNA	20 µl
10X DNase I Reaction Buffer	10 µl
DNase I (RNase-Free)	2 µl (4 U)
Nuclease-Free H_2O	Up to 100 µl

2. Incubate the reaction at 37°C for 15 minutes.
3. To inactivate DNase I activity, add 1 µl of 1M EDTA (not included) and incubate at room temperature for at least 10 minutes or purify with Column-Pure RNA Miniprep Kit (**Cat. No. D518**).
4. Products can be used directly in downstream applications, stored at -20°C for up to 6 months, or stored at -80°C for longer-term.

General Notes

- Reaction volumes can be adjusted according to your experiment.
- This product should not be used in digestions longer than 15 minutes or at temperatures higher than 37°C. For non-RNAse-Free DNAse I, see **Cat. No. G028**.

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