

DNase I (Lyo)

Product Information

Cat#	DIA-470
Description	DNase I (Deoxyribonuclease I) is an endonuclease that randomly cleaves single-stranded or double-stranded DNA, generating oligonucleotides with 5'-phosphate termini. Its activity is highly dependent on Ca^{2+} and can be activated by Mg^{2+} or Mn^{2+} . Under Mg^{2+} conditions, DNase I (lyophilized) can randomly cut dsDNA at any site; under Mn^{2+} conditions, it can cleave both strands at approximately the same site, producing blunt ends or sticky ends with 1–2 nucleotide overhangs. Glycerol-free, suitable for lyophilization.
Unit Definition	One unit (U) is defined as the amount of enzyme required to completely degrade 1 μg of pBR322 plasmid DNA in 10 minutes at 37 °C.
Storage	2–8 °C, –20 °C \pm 5 °C for long-term storage
Synonyms	Deoxyribonuclease I
Inhibitors	Metal chelators, 0.1% SDS, DTT, and mercaptoethanol
Contaminants	Free of E. coli DNA residues; free of endo-/exonuclease contamination
Applications	Preparation of DNA-free RNA samples; removal of genomic DNA contamination prior to RT-PCR; removal of DNA templates after in vitro transcription with T7, T3, or SP6 RNA polymerases; footprinting assays for DNA–protein interactions; used with DNA polymerase I for nick translation; DNA fragmentation to create random libraries in the presence of Mn^{2+} ; positive control in TUNEL assays for apoptotic DNA fragmentation.

Product Overview **Product Components:**

100 U:

DNase I (Lyo): 100 U

25 mM EDTA: 500 μL

500 U:

DNase I (Lyo): 500 U

25 mM EDTA: 2.5 mL

Product Features:



Creative Enzymes

Diagnostic Enzymes

DNase I (Lyo)

Quickly reconstitutes with RNase-Free Water

No cold-chain transport required; stable at room temperature or 2–8 °C storage

No additional reaction buffer required

Package	100/500 U
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