

Active Recombinant Bovine DNase I

Cat. No. DNase I-04B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant DNase I is derived from bovine pancreas and recombinantly expressed in <i>Pichia pastoris</i> . The RNase activity has been removed during the purification process. RNase Activity: Negative Residual Host Cell Protein: < 50 ppm Residual Host Cell DNA: < 100 pg/mg pH: 7.8-8.2
Species	Bovine
Source	Pichia
Description	DNase I is a non-specific endonuclease that can degrade double-stranded and single-stranded DNA as well as chromosomes. It acts by hydrolyzing phosphodiester bonds to produce mononucleotides and oligonucleotides with 5'-phosphate groups and 3'-hydroxyl groups. The activity of this enzyme requires the participation of Mg ²⁺ or Ca ²⁺ ions, and the optimal pH is approximately 7.8.
Purity	≥ 95% by SDS-PAGE
Bio-activity	≥ 2 U/μL
Advantages	1. RNase-free. 2. It has high purity and can be directly used for amplification reactions. 3. Its performance is comparable to that of well-known brand.
Unit definition	1 U is defined as the amount of enzyme required to completely degrade 1 μg of plasmid DNA at 37 centigrade within 10 minutes.

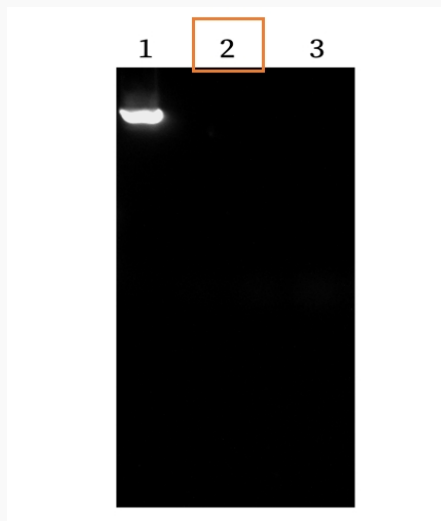
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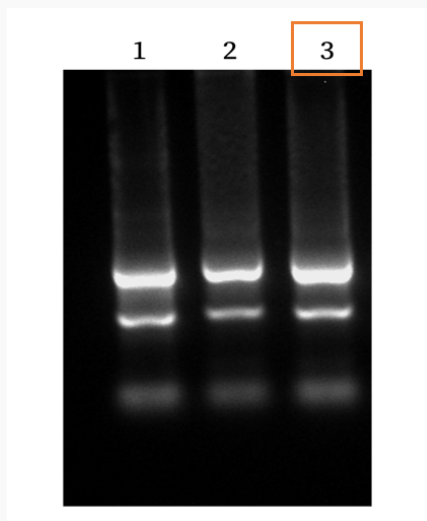
Endotoxin	< 10 EU/mg
Usage	RNA: 10 µg 10× DNase I Reaction Buffer: 10 µL Recombinant DNase I: 2 U Water: Up to 100 µL Incubate at 37 centigrade for 10 minutes. After the reaction is completed, add EDTA to a final concentration of 5 mM and incubate at 75 centigrade for 10 minutes to inactivate DNase I.
Applications	1. Removal of template DNA after in vitro transcription 2. Removal of DNA contamination in RNA
Note	1. Try to avoid freeze-thaw cycles of this product after receipt; 2. Please wear lab coat and disposable gloves when using; 3. Inactivation: Add EDTA to a final concentration of 5 mM and heat at 75 centigrade for 10 minutes to inactivate DNase I; 4. This product should not be used directly for clinical diagnosis and treatment.
Stability	This product should be stored at -20 centigrade and can be stored for at least 24 months.
Storage	Store at -20 centigrade.
Shipping	Dry Ice

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The DNase I digestion experiment of plasmids (37 centigrade, 10 min) Lane 1: 1 μ g of plasmid DNA; Lane 2: 1 μ g of plasmid DNA+1U of DNase I (Ours); Lane 3: 1 μ g of plasmid DNA+1U of DNase I (Well-known brand)

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RNase detection experiment (37 centigrade, 4 hours) Lane 1: 1

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µg of total Human RNA; Lane 2: 1 µg of total human RNA+2U of DNase I (Well-known brand); Lane 3: 1 µg of total human RNA+2U of DNase I (Ours)

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