

## Recombinant DNase I, GMP Grade

**Cat. No.** DNASE1-01HG    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

DNase I (Deoxyribonuclease I, deoxyribonuclease I) was initially isolated from bovine pancreas, with a molecular weight of approximately 39 kD. It is a deoxyribonuclease endonuclease that can randomly decompose single-stranded or double-stranded DNA to the same extent, generating oligonucleotides with 5'-P ends. DNase I hydrolyzes single-stranded or double-stranded DNA. Its activity is highly dependent on the  $\text{Ca}^{2+}$  level and can be activated by  $\text{Mg}^{2+}$  or  $\text{Mn}^{2+}$ . Under the condition of  $\text{Mg}^{2+}$  presence, DNase I can randomly cleave any site of double-stranded DNA. Under the condition of the presence of  $\text{Mn}^{2+}$ , DNase I can cleave the two strands of DNA at approximately the same sites, thereby obtaining sticky ends with flat ends or 1-2 nucleotide protrusions. This product is GMP-grade recombinant DNase I expressed through large-scale fermentation using *Pichia pastoris*. It is produced using pharmaceutical-grade raw and auxiliary materials, and strictly controls host protein residues, nucleic acid residues, etc. The product production and quality management procedures in compliance with GMP standards ensure the traceability of the production process and all raw and auxiliary materials.

#### Species

Bovine

#### Source

Yeast

#### Bio-activity

Within 10 minutes at 37°C, the amount of enzyme required to completely degrade 1µg of pBR322 plasmid DNA is defined as one active unit.

#### Molecular Mass

39 kDa

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                       |                                                                                                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b>      | < 5EU/ml                                                                                                                                                                      |
| <b>Purity</b>         | ≥95%                                                                                                                                                                          |
| <b>Storage</b>        | Store at -20±5°C.                                                                                                                                                             |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents. |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA