

### ★ Storage

Store at  $-20^{\circ}\text{C}$ .  
Do not store in a frost-free freezer.  
Lyophilized form stable at room temperature for 1-2 weeks.  
Upon reconstitution, should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-20^{\circ}\text{C}$

### ✎ Contents

- Product Manual
- Deoxyribonuclease I, (DNase I) RNase free

ALL PRODUCTS SOLD BY GenDEPOT ARE INTENDED FOR RESEARCH USE ONLY UNLESS OTHERWISE INDICATED. THIS PRODUCT IS NOT INTENDED FOR DIAGNOSTIC OR DRUG PURPOSE

### ★ Shipping Condition

Ship with ice pack.

### ★ Introduction

DNase I (Deoxyribonuclease I) is a dialyzed lyophilized powder from bovine pancreas that has been purified by chromatography. Bovine pancreatic deoxyribonuclease I (DNase I) is an endonuclease which splits phosphodiester linkages, preferentially adjacent to a pyrimidine nucleotide yielding polynucleotides with a free hydroxyl group at the 3' position and phosphate group at the 5' position. The optimum pH is 7.8.

DNase I is activated by bivalent metals, and inhibited by chelating agents such as EDTA and SDS. DNase I can be stabilized against proteolytic digestion by 5mM  $\text{CA}^{2+}$ .

### ★ Source

Bovine pancreas.

### ★ Form

Lyophilized powder from bovine pancreas that has been purified by chromatography.

### ★ Application

- Digestion of DNA in the recovery of intact RNA.
- Digestion of DNA in the recovery of proteins.
- Nick translation.
- DNA mapping.
- Removing genomic DNA for RT-PCR
- Removing membrane bound DNA fragments.

### ★ Unit Definition

1 unit causes an increase in absorbance at 260nm of 0.0001 per minute per ml at  $25^{\circ}\text{C}$  when acting upon highly polymerized DNA at pH 5.0.

**Note:** As measured at GenDEPOT, one Kunitz unit digests 1ug of lambda DNA in 10 minutes at  $37^{\circ}\text{C}$  in 50mM Tris, 1mM  $\text{Mg}^{2+}$ , 1mM  $\text{Ca}^{2+}$ , pH 7.8 in a 50ul reaction. Correlation of digestion units with Kunitz units is different for other DNA and buffer systems.

### ★ Storage and Stability

When properly stored, deoxyribonuclease are stable for 2-3 years. Recommended storage temperature of DNase is  $-20^{\circ}\text{C}$ . For long term storage in solution, DNases may be dissolved in 5mM acetate, 1mM calcium, pH 4.5 and stored in single use aliquots at  $-20^{\circ}\text{C}$  or  $-70^{\circ}\text{C}$  for up to one year. Only freeze and thaw once; thawed aliquotes are stable refrigerated at least several weeks. Addition of 50% glycerol will maintain a liquid state at  $-20^{\circ}\text{C}$  without affecting stability and material in 50% glycerol can be removed and returned to  $-20^{\circ}\text{C}$  repeatedly. For long term storage of DNase I after reconstitution, use water or any buffer pH4.0 to 9.0 except phosphate: avoid calcium chelators; add 50% glycerol for storage as liquid at  $-20^{\circ}\text{C}$ ; aliquote in single use containers; only freeze and thaw once; thawed aliquots are stable refrigerated at least several weeks.

### ★ Related Products

Product Name	Cat No
Oligo dT (18)	O1024
PureXtract RNAsol, Trizol equivalent	R6101
amfiRivert cDNA Synthesis Platinum Master Mix	R5600
RNazor, Rnase Decontamination Solution	R5800
amfiRivert Platinum One cDNA Synthesis Master Mix (4x)	R6100
RNazor, RNase Decontamination Solution	R7000
Water, DEPC Treated	W0805