



## DEOXYRIBONUCLEASE I

## Molecular Biology/Cell Biology





Worthington prepares Deoxyribonuclease I from bovine pancreas at different levels of purity to suit many different applications. Product Codes: DPRF and DPRFS are both especially designed for Molecular Biology applications and contain the lowest levels of ribonuclease and protease activity. They are both suitable for use in techniques requiring digestion of DNA in the recovery of intact RNA or where the integrity of structural proteins or enzymes must be maintained. Applications have included nick translation, DNA mapping, isolation of nuclear RNA and protein, plasmid construction, and RNA polymerase synthesis of RNA. Additional grades for other applications are listed below.

## Recombinant DNase I, Animal Origin Free (AOF)

Bovine pancreas is a rich source of RNase which is often found in many commercial DNase preparations. Producing DNase I by recombinant means in an organism with much lower levels of endogenous RNase greatly facilitates purification of an enzyme with undetectable levels of RNase. The processes involved in the production and isolation of recombinant DNase I (DR1/DR1S) are completely devoid of animal based components which eliminates the possibility of introducing animal derived pathogens into bioprocessing procedures. Recombinant DNase I is suitable for such applications as:

- Removing genomic DNA from RNA preparations prior to RT-PCR
- Degradation of DNA templates after transcription reactions
- Removing unwanted DNA from samples prior to Northern blotting
- Removing DNA during biopharma and bioprocessing procedures

Description	Activity	Code	Cat. No.	Size	
DNase I, Recombinant (AOF), Produced in Pichia pastoris, Ribonuclease & Protease Free, Lyophilized Powder.  Molecular Biology Grade. Free of RNase and protease. Chromatographically purified and lyophilized powder containing glycine as a stabilizer. Store at 2 - 8°C. PROTECT FROM MOISTURE.	≥ 5,000 Kunitz units per mg protein	DRI	LS006361 LS006362 LS006360	10 ku 50 ku Bulk	
DNase I, Recombinant (AOF), Produced in Pichia pastoris, Ribonuclease & Protease Free, Solution.  Molecular Biology Grade. Chromatographically purified to remove RNase and protease. Supplied as a ready-to-use solution at 2 ≥ Kunitz u/µl in 5mM calcium acetate, 4mg/ml glycine, pH 5.0 and 50% glycerol. Includes 10X reaction buffer. Store at -20°C. REQUIRES ICE PACK.	≥ 2 Kunitz units per microliter	DRIS	LS006353 LS006355 LS006357	2 ku 5x2 ku Bulk	

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Description	Activity	Code	Cat. No.	Size	
Deoxyribonuclease I, Ribonuclease & Protease Free, Solution  Molecular Biology Grade. Chromatographically purified to remove RNase and protease. Supplied as a solution at approximately 2 Kunitz units per microliter approximately 1 mg/ml containing 50% glycerol and 1 mM calcium chloride.  Store at 2-8°C or -20°C.	≥2,000 Kunitz units per ml	DPRFS	LS006342 LS006344 LS006348	100 un 500 un Bulk	
Deoxyribonuclease I, Ribonuclease & Protease Free Molecular Biology Grade. Chromatographically purified to remove RNase and protease. Lyophilized in vials. Each 10,000 unit vial contains 2 mg glycine, 2 $\mu$ moles calcium, and $\geq$ 10,000 units of DNase I. Each 2,500 unit vial contains 0.5 mg glycine, 0.5 $\mu$ moles calcium, and $\geq$ 2,500 units of DNase I. Dissolving the entire 10,000 unit vial in 5 ml, or the entire 2,500 unit vial in 1.25 ml, provides the equivalent of a 1 mg/ml solution. (ku = 1000 un). Store at 2-8°C. PROTECT FROM MOISTURE.	≥2,000 Kunitz units per mg dry weight	DPRF	LS006331 LS006333 LS006334	2500 un 10 ku Bulk	
Deoxyribonuclease I Chromatographically prepared especially for low (≤0.0005%) ribonuclease activity content. A lyophilized powder containing glycine as a stabilizer. Store at 2 - 8°C. PROTECT FROM MOISTURE.	≥2,000 Kunitz units per mg dry weight	DPFF	LS006330 LS006328 LS006332	25 ku 125 ku Bulk	
Deoxyribonuclease I Chromatographically purified. A lyophilized powder with glycine as a stabilizer. Store at 2 - 8°C. PROTECT FROM MOISTURE.	≥2,000 Kunitz units per mg dry weight	D	LS002004 LS002006 LS002007 LS002009	5 mg 20 mg 100 mg Bulk	
Deoxyribonuclease I, Filtered Filtered through a 0.22 micron membrane and lyophilized in vials. Material is not tested for pyrogenicity. Store at 2-8°C. PROTECT FROM MOISTURE.	≥2,000 Kunitz units per mg dry weight	DCLS	LS002058 LS002060	11 mg 25 mg	
Deoxyribonuclease I, Standard Vial Lyophilized in vials for assay standardization. Labeled to show established activity. Not suitable for assays at neutral pH. Store at 2-8°C.	~2,000 Kunitz units per vial	DSV	LS002173 LS002172	2 ku 5x2 ku	
PDS Kit, DNase Vial A component of the Papain Dissociation System. This material is 0.22 micron membrane filtered and lyophilized in autoclaved vials. A vial reconstituted with 0.5 ml of EBSS or equivalent yields a solution of 2000 units/ml of deoxyribonuclease (1 mg/ml). Store at 2-8°C.	≥1,000 units per vial	D2	LK003170 LK003172	1 vi 5 vi	
Deoxyribonuclease I Partially purified. A lyophilized powder. Store at 2-8°C. PROTECT FROM MOISTURE.	≥2,000 Kunitz units per mg dry weight	DP	LS002138 LS002139 LS002140 LS002141	25 mg 100 mg 1 gm Bulk	
Deoxyribonuclease I Partially purified. A lyophilized powder. Store at 2-8°C. PROTECT FROM MOISTURE.	≥1,250 Kunitz units per mg dry weight	DPB	LS002145 LS002147 LS002149	100 mg 1 gm Bulk	

## **Related Products**

Actin ◆ Albumin, Nuclease-Free ◆ Deoxyribonuclease II ◆ Deoxyribonucleic Acid and Related Products ◆ Histones ◆ Lysozyme ◆ Nuclease, Micrococcal Nuclease, S1 ◆ Phosphatase, Alkaline ◆ Phosphodiesterase I ◆ Phosphodiesterase II ◆ Proteinase K ◆ Reverse Transcriptase, Recombinant HIV Ribonuclease ◆ Ribonuclease T1 ◆ Ribonucleic Acid ◆ STEMxyme<sup>TM</sup> 1 & 2 Collagenase/Neutral Protease Blends

Complete Catalog, Tissue Dissociation Guide and Enzyme Manual available online at: Worthington-Biochem.com TissueDissociation.com