

Product Specification Sheet

Product: Deoxyribonuclease I

Source: *Bovine Pancreas*

Code: MB-101-0100

Lot # 7564

Size: 100 units

Physical State: Liquid (sterile filtered)

Enzyme Concentration: 2023 units/ml or ~2 units/ μ l (111 units/vial) which approximately equals 1 mg/ml.

% Ribonuclease: none detected

% Protease: none detected

Buffer Composition: A solution in 1 mM Calcium Chloride and 50% (v/v) glycerol.

Application(s): Deoxyribonuclease I is an endonuclease which splits phosphodiester linkages yielding polynucleotides with a free 3'-OH and 5'-phosphate. Activated by bivalent metal ions and inhibited by chelators such as EDTA. Chromatographically purified to be free of ribonuclease and protease activity.

Storage Conditions: Store vial at 2° to 8° C or -20° C or colder. Expiration date is six (6) months from date of opening vial.

Unit Definition: One unit will cause an increase in the absorbance at 260 nm of 0.001 per minute per ml at 25° C, pH 5.0 when acting on highly polymerized DNA according to the assay method of Kunitz (*J.Gen.Physiol.* **33**, 349 and 363 (1950)).

Other Enzymatic Activity: RNase – No change in the ethidium bromide stained agarose gel electrophoresis band pattern of ribosomal RNA (rRNA) following the incubation of 20 units of Deoxyribonuclease I for 20 hours (400 unit hours) at 37° C with 0.10 A260 units of rRNA in 50 mM Tris Cl, 1 mM Magnesium Chloride and 1 mM Calcium Chloride, pH 7.8 in a 50 μ l volume. Proteases – No development of digestion zones when 200 units of Deoxyribonuclease I are incubated in a casein agarose plate for 48 hours at 37° C.

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.