Worthington Biochemical Corporation

730 Vassar Avenue, Lakewood, NJ 08701
800.445.9603 * 732.942.1660 fax 800.368.3108 * 732.942.9270
www.worthington-biochem.com

# Certificate of Analysis



| | |
|---|---|
| Product | Deoxyribonuclease I |
| Source | Bovine Pancreas |
| Country of Manufacture | USA<br>All products from animal sources are produced from starting material of USDA-approved origin, collected in United States Department of Agriculture (USDA) or equivalent approved facilities, inspected to be free of disease and suitable for exportation. Certificates of Origin are available upon request. |
| Storage | Store at 2-8°C. PROTECT FROM MOISTURE. |
| Code | DPFF |
| Lot Number | |
| Re-Assay Date | |
| Description | Chromatographically purified. A lyophilized powder containing glycine as a stabilizer. Contains ≤ 0.0005% RNase. |
| Unit Definition | One Unit causes an increase in absorbance at 260 nm of 0.001 per minute per ml, at 25°C, pH 5.0, when acting on highly polymerized DNA in the presence of ionized magnesium and calcium. |

| Parameter | Result | Acceptance Criteria |
|---|---|---|
| u/mg dw | 6,860 | ≥2,000 Kunitz units per mg dry weight |
| % RNase | 0.0003% | <0.0005% on weight basis using a polyC assay |
| A280nm @ 1 mg/ml | 0.86 | Report assay value. |
| Protease | None detected | None detected |
| SDS PAGE | Satisfactory | >90% purity |
| u/mgP | 8,909 | >5000 |

NOTE: Pancreatic DNase is very sensitive to denaturation. Mix by gentle inversion. Worthington certifies that all lots of deoxyribonuclease are subjected to a pH of less than 3.0 for greater than 5 hours during processing. Proteases: No development of digestion zones when 200 units of DPRF are incubated in a casein agarose plate for 24 hrs at 37°C. Activated by bivalent metal ions. Maximum activation attained with Mg++ plus Ca++. In the presence of Mg++, DNase I attacks each strand of DNA independently and the sites of cleavage are random. In the presence of Mn++, DNase I cleaves both strands of DNA simultaneously to yield blunt-ended fragments or those that have protruding termini of 1-2 nucleotides.

**Approved by:** Thomas R. Ryan, Quality Control Manager (signature on file) **Date:** 8/25/20