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	DNase I, RNase & Protease Free, Lyophilized
Source	Bovine Pancreas
Country of Manufacture	USA 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	DPRFQ
Lot Number	
Re-Assay Date	
Description	Molecular Biology Grade. Chromatographically purified to remove RNase and protease. Lyophilized in vials. Each vial contains glycine and calcium as stabilizers.
Unit Definition	One Unit causes an increase in absorbance at 260nm 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).

Parameter	Result	Acceptance Criteria
A280 (750 unit vial)	0.10	Report assay value.
RNase	None detected	None detected
Protease	None detected	None detected
units/vial (750 unit vial)	835	≥750 units per vial

Pancreatic DNase is very sensitive to denaturation. Mix by gentle inversion. RNase: No change in the band pattern following electrophoresis of 1.5µg of HeLa cell total RNA treated with 6 units DPRFQ in 20µL 50mM Tris-HCl, pH 7.6 for 1hr at 37°C. 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 protruding termini of 1-2 nucleotides. Worthington Biochemical Corporation, the producer of the above specified product, certifies that all lots of DNase, RNase and Trypsin are subjected to a pH of less than 3.0 for greater than five (5) hours during processing.

Approved by: Thomas R. Ryan, Quality Control Manager (signature on file) **Date:** 4/7/15