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New England Biolabs
Certificate of Analysis

Product Name:	*DNase I (RNase-free)*
Catalog #:	*M0303S/L*
Concentration:	*2,000 units/ml*
Unit Definition:	*One unit is defined as the amount of enzyme which will completely degrade 1 µg of pBR322 DNA in 10 minutes at 37°C in DNase I Reaction Buffer. Complete degradation is defined as the reduction of the majority of DNA fragments to tetranucleotides or smaller.*
Lot #:	*0161506*
Assay Date:	*06/2015*
Expiration Date:	*6/2017*
Storage Temp:	*-20°C*
Storage Conditions:	*10 mM Tris-HCl (pH 7.6), 2 mM CaCl2 , 50 % Glycerol*
Specification Version:	*PS-M0303S/L v1.0*
Effective Date:	*22 Apr 2015*

Assay Name/Specification (minimum release criteria)	**Lot #0161506**
Protein Purity Assay (SDS-PAGE) - DNase I (RNase-free) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
RNase Activity (ds RNA) - A 50 µl reaction in DNase I Reaction Buffer containing 10 µg of a dsRNA Ladder and a minimum of 100 units of DNase I (RNase-free) is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by fluorescent detection.	**Pass**
RNase Activity (Extended Digestion) - A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 2 units of DNase I (RNase-free) is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	**Pass**

Authorized by
Derek Robinson
22 Apr 2015

Inspected by
John Greci
20 Jun 2015

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices