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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 #:	*0161610*
Assay Date:	*10/2016*
Expiration Date:	*10/2018*
Storage Temp:	*-20°C*
Storage Conditions:	*10 mM Tris-HCl (pH 7.6), 2 mM $CaCl_2$, 50 % Glycerol*
Specification Version:	*PS-M0303S/L v1.0*
Effective Date:	*22 Apr 2015*

Assay Name/Specification (minimum release criteria)	**Lot #0161610**
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
14 Oct 2016

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