NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
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www.neb.com
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New England Biolabs
Certificate of Analysis

Product Name:	*DNase I (RNase-free)*
Catalog Number:	*M0303L*
Concentration:	*2,000 U/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.*
Packaging Lot Number:	*10191393*
Expiration Date:	*04/2025*
Storage Temperature:	*-20°C*
Storage Conditions:	*10 mM Tris-HCl (pH 7.6), 2 mM CaCl2 , 50 % Glycerol*
Specification Version:	*PS-M0303S/L v1.0*

DNase I (RNase-free) Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
M0303LVIAL	DNase I (RNase-free)	10185550	**Pass**
B0303SVIAL	DNase I Reaction Buffer	10176771	**Pass**

Assay Name/Specification	**Lot # 10191393**
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 (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 37ºC. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using 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 37ºC. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	**Pass**
RNase Activity (ds RNA) A 50 µl reaction in DNase I Reaction Buffer containing 10 µg of a dsRNA Ladder and a	**Pass**

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Assay Name/Specification	Lot # 10191393
minimum of 100 units of DNase I (RNase-free) is incubated at 37ºC. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by fluorescent detection.	

This product has been tested and shown to be in compliance with all specifications.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Penghua Zhang
Production Scientist
03 May 2023

Michael Tonello
Packaging Quality Control Inspector
10 May 2023