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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: 10145038
Expiration Date: 11/2023
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)	10123433	Pass	
B0303SVIAL	DNase I Reaction Buffer	10121416	Pass	

Assay Name/Specification	Lot # 10145038
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
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
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



M0303L / Lot: 10145038

Page 1 of 2

Assay Name/Specification Lot # 10		
Protein Purity Assay (SDS-PAGE)	Pass	
DNase I (RNase-free) is ≥ 95% pure as determined by SDS-PAGE analysis using		
Coomassie Blue 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.

John Greci Production Scientist

23 Mar 2022

Michael Tonello

Packaging Quality Control Inspector

23 Mar 2022