

## New England Biolabs Certificate of Analysis

**Product Name:** DNase I (RNase-free)  
**Catalog Number:** M0303S  
**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.  
**Lot Number:** 10034586  
**Expiration Date:** 08/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl (pH 7.6), 2 mM CaCl<sub>2</sub>, 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
M0303SVIAL	DNase I (RNase-free)	10018181	Pass
B0303SVIAL	DNase I Reaction Buffer	10015391	Pass

Assay Name/Specification	Lot # 10034586
<b>Protein Purity Assay (SDS-PAGE)</b> DNase I (RNase-free) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
<b>RNase Activity (ds RNA)</b> 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
<b>RNase Activity (Extended Digestion)</b> 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

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

*John D. Greci*

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John Greci  
Production Scientist  
17 Aug 2018

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
18 Jan 2019