

## 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 #:* 0111503  
*Assay Date:* 03/2015  
*Expiration Date:* 3/2017  
*Storage Temp:* -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  
*Effective Date:* 11 Feb 2014

Assay Name/Specification (minimum release criteria)	Lot #0111503
<b>Protein Purity Assay (SDS-PAGE)</b> - DNase I (RNase-free) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	<b>Pass</b>
<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.	<b>Pass</b>
<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.	<b>Pass</b>

M. W. Southworth

Authorized by  
Maurice Southworth  
11 Feb 2014

Dongxian Yue

Inspected by  
Dongxian Yue  
27 Feb 2015

