

New England Biolabs Certificate of Analysis

Product Name: DNase I Reaction Buffer
Catalog Number: B0303S
Concentration: 10 X Concentrate
Lot Number: 10045176
Expiration Date: 04/2022
Storage Temperature: -20°C
Specification Version: PS-B0303S v1.0
Composition (1X): 10 mM Tris-HCl, 2.5 mM MgCl₂, 0.5 mM CaCl₂, (pH 7.6 @ 25°C)

DNase I Reaction Buffer Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B0303SVIAL	DNase I Reaction Buffer	10041566	Pass

Assay Name/Specification	Lot # 10045176
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X DNase I Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Functional Testing (DNaseI Reaction Buffer) A 50 µl reaction in 1X DNase I Reaction Buffer containing 1 µg pBR322 DNA and 1:100 units DNaseI (RNase Free) incubated for 10 minutes at 37°C results in complete digestion of the substrate DNA as determined by agarose gel electrophoresis.	Pass
Non-Specific DNase Activity (16 hour, Buffer) A 50 µl reaction in 1X DNase I Reaction Buffer containing 1 µg of HaeIII digested PhiX174 RF I DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
pH (buffers/solutions) The pH of 10X DNase I Reaction Buffer is between pH 7.5 and 7.7 at 25°C.	Pass
RNase Activity (Buffer) A 10 µl reaction in 1X DNase I Reaction Buffer containing 40 ng of a 300 base single-stranded RNA is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by polyacrylamide gel electrophoresis.	Pass

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



John D. Greci

John Greci
Production Scientist
04 Apr 2019

Mary Conlon

Mary Conlon
Packaging Quality Control Inspector
06 Jun 2019