

New England Biolabs Certificate of Analysis

Product Name: DNase I Reaction Buffer
Catalog Number: B0303S
Concentration: 10 X Concentrate
Packaging Lot Number: 10220967
Expiration Date: 02/2026
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	10211600	Pass

Assay Name/Specification	Lot # 10220967
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
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
pH (buffers/solutions) The pH of 10X DNase I Reaction Buffer is between pH 7.5 and 7.7 at 25°C.	Pass

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



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Production Scientist
20 Dec 2023



Michael Tonello
Packaging Quality Control Inspector
20 Dec 2023