

New England Biolabs Certificate of Analysis

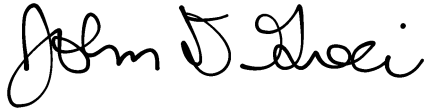
Product Name: Exonuclease I Reaction Buffer
Catalog Number: B0293S
Concentration: 10 X Concentrate
Packaging Lot Number: 10102414
Expiration Date: 05/2024
Storage Temperature: -20°C
Specification Version: PS-B0293S v1.0
Composition (1X): 67 mM Glycine-KOH, 6.7 mM MgCl₂, 10 mM βME, (pH 9.5 @ 25°C)

Exonuclease I Reaction Buffer Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B0293SVIAL	Exonuclease I Reaction Buffer	10105298	Pass

Assay Name/Specification	Lot # 10102414
RNase Activity (Buffer) A 10 µl reaction in 1X Exonuclease 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 gel electrophoresis using fluorescent detection.	Pass
Non-Specific DNase Activity (16 hour, Buffer) A 50 µl reaction in 1X Exonuclease I Reaction Buffer containing 1 µg of PhiX174-HaeIII 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
Functional Testing (Reaction Buffer) A 100 µl reaction in 1X Exonuclease I Reaction Buffer containing 0.17 mg/ml of single stranded [³ H] DNA and 1 unit of Exonuclease I (E. coli) incubated for 30 minutes at 37°C results in the release of 10 nmol of acid-soluble nucleotide as determined by scintillation counting.	Pass
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X Exonuclease 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

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

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John Greci
Production Scientist
11 May 2021



Michael Tonello
Packaging Quality Control Inspector
11 May 2021