

New England Biolabs Certificate of Analysis

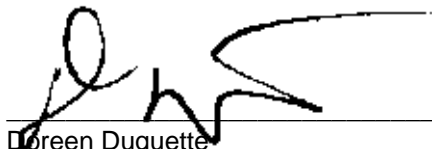
Product Name: NEBuffer™ 1
Catalog Number: B7001S
Concentration: 10 X Concentrate
Lot Number: 10044693
Expiration Date: 04/2022
Storage Temperature: -20°C
Specification Version: PS-B7001S v1.0
Composition (1X): 10 mM Bis-Tris-Propane-HCl, 10 mM MgCl₂, 1 mM DTT, (pH 7.0 @ 25°C)

NEBuffer™ 1 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B7001SVIAL	NEBuffer™ 1	10041625	Pass

Assay Name/Specification	Lot # 10044693
Conductivity (buffers/solutions) The conductivity of 10X NEBuffer 1 is between 20 and 30 mS at 25°C.	Pass
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X NEBuffer 1 containing 1 µg of supercoiled PhiX174 RF I 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 (Restriction Digest, BSA, Buffer) A 50 µl reaction in 1X NEBuffer 1 plus 100 µg/ml Bovine Serum Albumin containing 1 µg of Lambda-HindIII DNA and 1 unit of SacI incubated for 1 hour at 37°C results in complete digestion of the substrate DNA as determined by agarose gel electrophoresis.	Pass
Functional Testing (Restriction Digest, BSA, Buffer) A 50 µl reaction in 1X NEBuffer 1 plus 100 µg/ml Bovine Serum Albumin containing 1 µg of pXba DNA and 1 unit of KpnI incubated for 1 hour 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 NEBuffer 1 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

Assay Name/Specification	Lot # 10044693
<p>pH (buffers/solutions) The pH of 10X NEBuffer 1 is between pH 6.9 and 7.1 at 25°C.</p>	Pass
<p>RNase Activity (Buffer) A 10 µl reaction in 1X NEBuffer 1 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 fluorescent detection.</p>	Pass

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



Doreen Duquette
Production Scientist
17 Apr 2019



Michael Tonello
Packaging Quality Control Inspector
02 May 2019