

New England Biolabs Certificate of Analysis

Product Name: NEBuffer™ 2
Catalog Number: B7002S
Concentration: 10 X Concentrate
Packaging Lot Number: 10069218
Expiration Date: 04/2023
Storage Temperature: -20°C
Specification Version: PS-B7002S v1.0
Composition (1X): 50 mM NaCl, 10 mM Tris-HCl, 10 mM MgCl₂, 1 mM DTT, (pH 7.9 @ 25°C)

NEBuffer™ 2 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B7002SVIAL	NEBuffer™ 2	10074105	Pass

Assay Name/Specification	Lot # 10069218
Conductivity (buffers/solutions) The conductivity of 10X NEBuffer 2 is between 52 and 78 mS/cm at 25°C.	Pass
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X NEBuffer 2 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 (Restriction Digest, BSA, Buffer) A 50 µl reaction in 1X NEBuffer 2 plus 100 µg/ml Bovine Serum Albumin containing 1 µg of Lambda DNA and 1 unit of SphI 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 2 plus 100 µg/ml Bovine Serum Albumin containing 1 µg of Lambda DNA and 1 unit of HindIII 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 2 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

Assay Name/Specification	Lot # 10069218
<p>pH (buffers/solutions) The pH of 10X NEBuffer 2 is between pH 7.8 and 8.0 at 25°C.</p>	Pass
<p>RNase Activity (Buffer) A 10 µl reaction in 1X NEBuffer 2 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.



Michael Dalton
Production Scientist
29 Apr 2020



Jay Minichiello
Packaging Quality Control Inspector
29 Apr 2020