

New England Biolabs Certificate of Analysis

Product Name: NEBuffer™ 2
Catalog #: B7002S
Concentration: 10X Concentrate
Lot #: 0371803
Assay Date: 03/2018
Expiration Date: 03/2021
Storage Temp: -20°C
Composition (1X): 50 mM NaCl, 10 mM Tris-HCl, 10 mM MgCl₂, 1 mM DTT, (pH 7.9 @ 25°C)
Specification Version: PS-B7002S v1.0
Effective Date: 30 Jan 2018

Assay Name/Specification (minimum release criteria)	Lot #0371803
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
pH (buffers/solutions) - The pH of 10X NEBuffer 2 is between pH 7.8 and 8.0 at 25°C.	Pass
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.	Pass



Authorized by
Derek Robinson
30 Jan 2018



Inspected by
Tony Spear-Alfonso
23 Mar 2018

