

New England Biolabs Certificate of Analysis

Product Name: NEBuffer™ 2.1
Catalog Number: B7202S
Concentration: 10 X Concentrate
Packaging Lot Number: 10093524
Expiration Date: 10/2023
Storage Temperature: -20°C
Specification Version: PS-B7202S v1.0
Composition (1X): 50 mM NaCl, 10 mM Tris-HCl, 10 mM MgCl₂, 100 µg/ml BSA, (pH 7.9 @ 25°C)

NEBuffer™ 2.1 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B7202SVIAL	NEBuffer™ 2.1	10087451	Pass

Assay Name/Specification	Lot # 10093524
Conductivity (buffers/solutions) The conductivity of 10X NEBuffer 2.1 is between 55 and 62 mS at 25°C.	Pass
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X NEBuffer 2.1 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, Buffer) A 50 µl reaction in 1X NEBuffer 2.1 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
Functional Testing (Restriction Digest, Buffer) A 50 µl reaction in 1X NEBuffer 2.1 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
Non-Specific DNase Activity (16 hour, Buffer) A 50 µl reaction in 1X NEBuffer 2.1 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 # 10093524
<p>pH (buffers/solutions) The pH of 10X NEBuffer 2.1 is between pH 7.8 and 8.0 at 25°C.</p>	Pass
<p>RNase Activity (Buffer) A 10 µl reaction in 1X NEBuffer 2.1 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.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Nancy Considine
Production Scientist
06 Nov 2020



Michael Tonello
Packaging Quality Control Inspector
08 Dec 2020