

New England Biolabs Certificate of Analysis

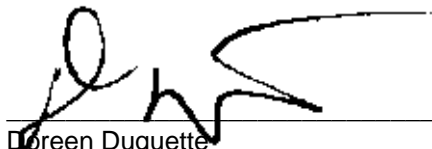
Product Name: NEBuffer™ 3.1
Catalog Number: B7203S
Concentration: 10 X Concentrate
Lot Number: 10053796
Expiration Date: 09/2022
Storage Temperature: -20°C
Specification Version: PS-B7203S v1.0
Composition (1X): 100 mM NaCl, 50 mM Tris-HCl, 10 mM MgCl₂, 100 µg/ml BSA, (pH 7.9 @ 25°C)

NEBuffer™ 3.1 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B7203SVIAL	NEBuffer™ 3.1	10053972	Pass

Assay Name/Specification	Lot # 10053796
Conductivity (buffers/solutions) The conductivity of 10X NEBuffer 3.1 is between 84 and 101 mS at 25°C.	Pass
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X NEBuffer 3.1 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 3.1 containing 1 µg of pBC4 DNA and 1 unit of NotI 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 3.1 containing 1 µg of Lambda DNA and 1 unit of AseI 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 3.1 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 # 10053796
<p>pH (buffers/solutions) The pH of 10X NEBuffer 3.1 is between pH 7.8 and 8.0 at 25°C.</p>	Pass
<p>RNase Activity (Buffer) A 10 µl reaction in 1X NEBuffer 3.1 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
16 Sep 2019



Jay Minichiello
Packaging Quality Control Inspector
27 Sep 2019