

New England Biolabs Certificate of Analysis


Product Name: NEBuffer™ 3
Catalog Number: B7003S
Concentration: 10 X Concentrate
Lot Number: 10055309
Expiration Date: 08/2022
Storage Temperature: -20°C
Specification Version: PS-B7003S v1.0
Composition (1X): 100 mM NaCl, 50 mM Tris-HCl, 10 mM MgCl₂, 1 mM DTT, (pH 7.9 @ 25°C)

NEBuffer™ 3 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B7003SVIAL	NEBuffer™ 3	10048944	Pass

Assay Name/Specification	Lot # 10055309
RNase Activity (Buffer) A 10 µl reaction in 1X NEBuffer 3 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
pH (buffers/solutions) The pH of 10X NEBuffer 3 is between pH 7.8 and 8.0 at 25°C.	Pass
Non-Specific DNase Activity (16 hour, Buffer) A 50 µl reaction in 1X NEBuffer 3 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
Functional Testing (Restriction Digest, BSA, Buffer) A 50 µl reaction in 1X NEBuffer 3 plus 100 µg/ml Bovine Serum Albumin 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
Functional Testing (Restriction Digest, BSA, Buffer) A 50 µl reaction in 1X NEBuffer 3 plus 100 µg/ml Bovine Serum Albumin 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

Assay Name/Specification	Lot # 10055309
<p>Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X NEBuffer 3 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.</p>	Pass
<p>Conductivity (buffers/solutions) The conductivity of 10X NEBuffer 3 is between 85 and 115 mS at 25°C.</p>	Pass

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



Doreen Duquette
Production Scientist
09 Aug 2019



Josh Hersey
Packaging Quality Control Inspector
30 Sep 2019