

## New England Biolabs Certificate of Analysis


Product Name: Nuclease-free Water  
Catalog Number: B1500S  
Lot Number: 10010869  
Expiration Date: 11/2019  
Storage Temperature: 25°C  
Specification Version: PS-B1500S/L v2.0

Nuclease-free Water Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
101081	Molecular Biology Grade Water, 25ml	0021711	Pass

Assay Name/Specification	Lot # 10010869
<p><b>Endonuclease Activity (Nicking, Water)</b> A 50 µl reaction in CutSmart<sup>®</sup> Buffer containing 1 µg of supercoiled PhiX174 RF I DNA with Nuclease-free Water incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Endotoxin Testing (Endosafe<sup>®</sup>)</b> Each test channel of the cartridge is loaded with 25 µl of Nuclease-free Water, then placed into the Endosafe MCS reader for analysis resulting in a measurement of &lt;0.01 EU/ml.</p>	Pass
<p><b>Non-Specific DNase Activity (16 Hour, Water)</b> A 50 µl reaction in CutSmart<sup>®</sup> Buffer containing 1 µg of PhiX174-HaeIII DNA with Nuclease-free Water incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p><b>RNase Activity (Extended Digestion, Water)</b> A 10 µl reaction in 1X NEBuffer 4 containing 40 ng of RNA transcript with Nuclease-free Water is incubated at 37°C. After incubation for 16 hours, no detectable degradation of the RNA is observed as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p><b>UV-Visible Scan</b> A UV-Visible scan using a spectrophotometer that covers the range of 200nm to 800nm will have no detectable peaks above background.</p>	Pass
<p><b>qPCR DNA Contamination (E. coli Genomic, Water)</b></p>	Pass

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Nuclease-free Water is used to make a qPCR master mix and screened across a 96 well plate for the presence of E. coli genomic DNA using 40 cycles of SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Melt curve analysis results in < 5% positive samples above background.	

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

  
Michael Dalton  
Production Scientist  
31 May 2018

  
Nick Privitera  
Packaging Quality Control Inspector  
31 May 2018