

## New England Biolabs Certificate of Analysis

**Product Name:** *Nuclease-free Water*  
**Catalog Number:** *B1500S*  
**Packaging Lot Number:** *10158058*  
**Expiration Date:** *12/2023*  
**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
B1500SVIAL	Nuclease-free Water	10131672	Pass

Assay Name/Specification	Lot # 10158058
<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>	<b>Pass</b>
<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>	<b>Pass</b>
<p><b>qPCR DNA Contamination (E. coli Genomic, Water)</b>            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 &lt; 5% positive samples above background.</p>	<b>Pass</b>
<p><b>Endonuclease Activity (Nicking, Water)</b>            A 50 µl reaction in CutSmart® 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>	<b>Pass</b>
<p><b>Endotoxin Testing (Endosafe®)</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>	<b>Pass</b>

Assay Name/Specification	Lot # 10158058
<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>	<p><b>Pass</b></p>

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

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