

## New England Biolabs Certificate of Analysis

**Product Name:** Nuclease-free Water  
**Catalog Number:** B1500L  
**Packaging Lot Number:** 10139010  
**Expiration Date:** 09/2023  
**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   | 10109003   | Pass                 |

| Assay Name/Specification  | Lot # 10139010 |
|---|----------------|
| <p><b>Non-Specific DNase Activity (16 Hour, Water)</b><br/>           A 50 µl reaction in CutSmart® 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>Endonuclease Activity (Nicking, Water)</b><br/>           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>                                | Pass           |
| <p><b>Endotoxin Testing (Endosafe®)</b><br/>           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>RNase Activity (Extended Digestion, Water)</b><br/>           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><br/>           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.

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01 Feb 2022



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