NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

New England Biolabs
Certificate of Analysis

Product Name: *Nuclease-free Water*
Catalog Number: *B1500S*
Packaging Lot Number: *10126248*
Expiration Date: *07/2023*
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	10108985	**Pass**

Assay Name/Specification	**Lot # 10126248**
qPCR DNA Contamination (E. coli Genomic, Water) 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.	**Pass**
UV-Visable Scan A UV-Visible scan using a spectrophotometer that covers the range of 200nm to 800nm will have no detectable peaks above background.	**Pass**
RNase Activity (Extended Digestion, Water) A 10 µl reaction in 1X NEBuffer 4 containing 40 ng of RNA transcript with Nuclease-free Water is incubated at 37ºC. After incubation for 16 hours, no detectable degradation of the RNA is observed as determined by gel electrophoresis using fluorescent detection.	**Pass**
Endotoxin Testing (Endosafe®) 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 <0.01 EU/ml.	**Pass**
Endonuclease Activity (Nicking, Water) 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 37ºC results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	**Pass**

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Assay Name/Specification	Lot # 10126248
Non-Specific DNase Activity (16 Hour, Water) A 50 µl reaction in CutSmart® Buffer containing 1 µg of PhiX174-HaeIII DNA with Nuclease-free Water incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Michael Dalton
Production Scientist
03 Nov 2021

Nick Privitera
Packaging Quality Control Inspector
03 Nov 2021