

New England Biolabs Product Specification

Product Name: Nuclease-free Water
Catalog #: B1500 S/L
Shelf Life: 24 months
Storage Temp: 20 to 25°C
Specification Version: PS-B1500 S/L v1.0
Effective Date: 11 Jan 2017

Assay Name/Specification (minimum release criteria)

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 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

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.

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 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

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 37°C. After incubation for 16 hours, no detectable degradation of the RNA is observed as determined by gel electrophoresis using fluorescent detection.

UV-Visible Scan - A UV-Visible scan using a spectrophotometer that covers the range of 200nm to 800nm will have no detectable peaks above background.

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



Date 11 Jan 2017

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Director of Quality Control

