

## New England Biolabs Certificate of Analysis

**Product Name:** *Endonuclease III (Nth)*  
**Catalog Number:** *M0268S*  
**Concentration:** *10,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to cleave 1 pmol of a 34 mer oligonucleotide duplex containing a single AP site in a total reaction volume of 10 µl in 1 hour at 37°C in 1X Endonuclease III Reaction Buffer containing 10 pmol of fluorescently labeled oligonucleotide duplex.*  
**Packaging Lot Number:** *10060392*  
**Expiration Date:** *12/2021*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *10 mM Tris-HCl, 250 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-M0268S/L v1.0*

Endonuclease III (Nth) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0268SVIAL	Endonuclease III (Nth)	10060393	Pass
B0268SVIAL	Endonuclease III (Nth) Reaction Buffer	10049636	Pass

Assay Name/Specification	Lot # 10060392
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 units of Endonuclease III (Nth) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 10 units of Endonuclease III (Nth) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in NEBuffer 1 containing 1 µg of Lambda-HindIII DNA and a minimum of 30 units of Endonuclease III (Nth) incubated for 16 hours at 37°C 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.

*Lauren Higgins*

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Lauren Sears Higgins  
Production Scientist  
26 Nov 2019

*Jay Minichiello*

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Jay Minichiello  
Packaging Quality Control Inspector  
02 Dec 2019