

## 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:** *10223538*  
**Expiration Date:** *12/2025*  
**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 v2.0*

Endonuclease III (Nth) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0268SVIAL	Endonuclease III (Nth)	10221817	Pass
B0268SVIAL	Endonuclease III (Nth) Reaction Buffer	10171167	Pass

Assay Name/Specification	Lot # 10223538
<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
<b>Protein Purity Assay (SDS-PAGE)</b> Endonuclease III (Nth) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
<b>qPCR DNA Contamination (E. coli Genomic)</b>	Pass

Assay Name/Specification	Lot # 10223538
A minimum of 1 µl of Endonuclease III (Nth) is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.	

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

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 22 Jan 2024

  
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 23 Jan 2024