

## New England Biolabs Certificate of Analysis

**Product Name:** *Tma Endonuclease III*  
**Catalog Number:** *M0291S*  
**Concentration:** *10,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to cleave 1 pmol of a 60-mer oligonucleotide duplex containing a single AP site in a total reaction volume of 10 µl in 1 hour at 65°C.*  
**Packaging Lot Number:** *10109991*  
**Expiration Date:** *05/2023*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *10 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 0.1 % Triton®X-100 , 50 % Glycerol, (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-M0291S/L v1.0*

Tma Endonuclease III Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0291SVIAL	Tma Endonuclease III	10109992	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10125244	Pass

Assay Name/Specification	Lot # 10109991
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 100 units of Tma Endonuclease III 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>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 100 units of Tma Endonuclease III incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Endonuclease Activity (Nicking)</b>            A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of Tma Endonuclease III incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	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](http://www.neb.com/trademarks) for additional information.

*Lauren Higgins*

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08 Feb 2022

*Michael Tonello*

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08 Feb 2022