

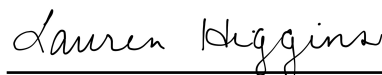
## New England Biolabs Certificate of Analysis

*Product Name:* Tth Endonuclease IV  
*Catalog #:* M0294S/L  
*Concentration:* 10,000 units/ml  
*Unit Definition:* One unit is defined as the amount of enzyme required to cleave 10 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.  
*Lot #:* 0011711  
*Assay Date:* 11/2017  
*Expiration Date:* 11/2019  
*Storage Temp:* -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-M0294S/L v1.0  
*Effective Date:* 02 May 2018

Assay Name/Specification (minimum release criteria)	Lot #0011711
<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 Tth Endonuclease IV incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	<b>Pass</b>
<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] <i>E. coli</i> DNA and a minimum of 100 units of Tth Endonuclease IV incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<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 Tth Endonuclease IV incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	<b>Pass</b>



Authorized by  
Derek Robinson  
02 May 2018



Inspected by  
Lauren Higgins  
29 Nov 2017

