

## New England Biolabs Certificate of Analysis

**Product Name:** *Endonuclease IV*  
**Catalog Number:** *M0304S*  
**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.*  
**Lot Number:** *10028880*  
**Expiration Date:** *11/2019*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *10 mM Tris-HCl, 250 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 0.15 % Triton®X-100, 200 µg/ml BSA, (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-M0304S/L v1.0*

Endonuclease IV Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0304SVIAL	Endonuclease IV	10028881	Pass
B7003SVIAL	NEBuffer™ 3	0111804	Pass

Assay Name/Specification	Lot # 10028880
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 3 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of Endonuclease IV 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 IV 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 3 containing 1 µg of Lambda-HindIII DNA and a minimum of 100 units of 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.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b> Endonuclease IV is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie	Pass

Assay Name/Specification	Lot # 10028880
Blue detection.	

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

*Lauren Higgins*

Lauren Sears Higgins  
Production Scientist  
16 Nov 2018

*Michael Tonello*

Michael Tonello  
Packaging Quality Control Inspector  
04 Dec 2018