

## 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.*  
**Packaging Lot Number:** *10139695*  
**Expiration Date:** *02/2023*  
**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       | 10139694   | Pass                 |
| B7003SVIAL                     | NEBuffer™ 3           | 10091037   | Pass                 |

| Assay Name/Specification   | Lot # 10139695 |
|--|----------------|
| <b>Endonuclease Activity (Nicking)</b><br>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><br>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><br>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><br>Endonuclease IV is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie   | Pass           |


| Assay Name/Specification | Lot # 10139695 |
|--------------------------|----------------|
| Blue detection.          |                |

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

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16 Mar 2022



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