

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: *10068189*
Expiration Date: *12/2020*
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 | 10062104 | Pass |
| B7003SVIAL | NEBuffer™ 3 | 10048944 | Pass |

| Assay Name/Specification | Lot # 10068189 |
|--|----------------|
| Endonuclease Activity (Nicking) 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 |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 1 containing 1 µg of a mixture of single and double-stranded [³ 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 |
| Non-Specific DNase Activity (16 Hour) 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 |
| Protein Purity Assay (SDS-PAGE) Endonuclease IV is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie | Pass |

| Assay Name/Specification | Lot # 10068189 |
|--------------------------|----------------|
| Blue detection. | |

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

Lauren Higgins

Lauren Higgins
Production Scientist
12 May 2020

Jay Minichiello

Jay Minichiello
Packaging Quality Control Inspector
12 May 2020