

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: *10057939*
Expiration Date: *10/2020*
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	10057937	Pass
B7003SVIAL	NEBuffer™ 3	0101802	Pass

Assay Name/Specification	Lot # 10057939
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 # 10057939
Blue detection.	

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

Lauren Higgins

Lauren Sears Higgins
Production Scientist
25 Oct 2019

Michael Tonello

Michael Tonello
Packaging Quality Control Inspector
08 Jan 2020