

## New England Biolabs Certificate of Analysis

**Product Name:** T7 Endonuclease I  
**Catalog Number:** M0302S  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to convert >90% of 1 µg of supercoiled cruciform pUC(AT) to >90% linear form in a total reaction volume of 50 µl in 1 hour at 37°C.  
**Packaging Lot Number:** 10106772  
**Expiration Date:** 04/2023  
**Storage Temperature:** -20°C  
**Storage Conditions:** 20 mM Tris-HCl, 200 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 0.15 % Triton®X-100, (pH 7.5 @ 25°C)  
**Specification Version:** PS-M0302S/L v1.0

| T7 Endonuclease I Component List |                       |            |                      |
|----------------------------------|-----------------------|------------|----------------------|
| NEB Part Number                  | Component Description | Lot Number | Individual QC Result |
| M0302SVIAL                       | T7 Endonuclease I     | 10106774   | Pass                 |
| B7002SVIAL                       | NEBuffer™ 2           | 10102430   | Pass                 |

| Assay Name/Specification                                                                                                                                                                                                                                                                                                                                                                                                                        | Lot # 10106772 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Protein Purity Assay (SDS-PAGE)</b><br>T7 Endonuclease I is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.                                                                                                                                                                                                                                                                                                    | Pass           |
| <b>Ligation and Recutting (Terminal Integrity, Digested DNA)</b><br>A 400 µl reaction in NEBuffer 2 containing 16 µg of PhiX174-HaeIII digest and a minimum of 40 units of T7 Endonuclease I incubated for 2 hours at 37°C followed by ligation with T4 DNA Ligase for 5 minutes at 25°C results in >50% ligation of the DNA fragments as determined by agarose gel electrophoresis. Of these ligated fragments, >95% can be recut with HaeIII. | Pass           |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.

*Lauren Higgins*

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Lauren Higgins  
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17 May 2021

*Michael Tonello*

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17 May 2021