

## New England Biolabs Certificate of Analysis

**Product Name:** T4 RNA Ligase 1 (ssRNA Ligase)  
**Catalog Number:** M0437M  
**Concentration:** 30,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to convert 1 nanomole of 5'-[<sup>32</sup>P] rA16 into a phosphatase-resistant form in 30 minutes at 37°C.  
**Packaging Lot Number:** 10159981  
**Expiration Date:** 07/2024  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl , 50 mM KCl , 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol, (pH 7.4 @ 25°C)  
**Specification Version:** PS-M0437M v1.0

| T4 RNA Ligase 1 (ssRNA Ligase) Component List |  |            |                      |
|---|--|------------|----------------------|
| NEB Part Number                               | Component Description                              | Lot Number | Individual QC Result |
| N0437AVIAL                                    | ATP  | 10156680   | Pass                 |
| M0437MVIAL                                    | T4 RNA Ligase 1 (ssRNA Ligase), High Concentration | 10153917   | Pass                 |
| B1004SVIAL                                    | PEG 8000   | 10153719   | Pass                 |
| B0216SVIAL                                    | T4 RNA Ligase Reaction Buffer                      | 10122381   | Pass                 |

| Assay Name/Specification  | Lot # 10159981 |
|---|----------------|
| <b>RNase Activity (Extended Digestion)</b><br>A 10 µl reaction in NEBuffer 4 containing 40 ng of RNA transcript and a minimum of 30 units of T4 RNA Ligase 1 (ssRNA Ligase), High Concentration is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using gel electrophoresis.   | Pass           |
| <b>qPCR DNA Contamination (E. coli Genomic)</b><br>A minimum of 10 units of T4 RNA Ligase 1 (ssRNA Ligase), High Concentration is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome. | Pass           |
| <b>Protein Purity Assay (SDS-PAGE)</b><br>T4 RNA Ligase 1 (ssRNA Ligase), High Concentration is ≥ 95% pure as determined by   | Pass           |

