

New England Biolabs Certificate of Analysis

Product Name: T4 RNA Ligase 1 (ssRNA Ligase)
Catalog Number: M0204S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to convert 1 nanomole of 5'-[³²P] rA16 into a phosphatase-resistant form in 30 minutes at 37°C.
Packaging Lot Number: 10160302
Expiration Date: 01/2024
Storage Temperature: -20°C
Storage Conditions: 50 mM KCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0204S/L v1.0

| T4 RNA Ligase 1 (ssRNA Ligase) Component List | | | |
|---|---------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| M0204SVIAL | T4 RNA Ligase 1 (ssRNA Ligase) | 10156769 | Pass |
| B1004SVIAL | PEG 8000 | 10153719 | Pass |
| B0756AVIAL | Adenosine-5'-Triphosphate (ATP) | 10137596 | Pass |
| B0216SVIAL | T4 RNA Ligase Reaction Buffer | 10153851 | Pass |

| Assay Name/Specification | Lot # 10160302 |
|---|----------------|
| RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of T4 RNA Ligase 1 (ssRNA Ligase) is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection. | Pass |
| qPCR DNA Contamination (E. coli Genomic) A minimum of 10 units of T4 RNA Ligase 1 (ssRNA Ligase) 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 |
| Protein Purity Assay (SDS-PAGE) T4 RNA Ligase 1 (ssRNA Ligase) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection. | Pass |


| Assay Name/Specification | Lot # 10160302 |
|---|----------------|
| <p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in T4 RNA Ligase 1 Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 30 units of T4 RNA Ligase 1 (ssRNA Ligase) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p> | Pass |
| <p>Endonuclease Activity (Nicking) A 50 µL reaction in T4 RNA Ligase 1 Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 units of T4 RNA Ligase 1 (ssRNA Ligase) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | Pass |

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

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Production Scientist
08 Sep 2022



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