

New England Biolabs Certificate of Analysis

Product Name: Taq DNA Ligase
Catalog Number: M0208L
Concentration: 40,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to give 50% ligation of the 12-base pair cohesive ends of 1 µg of BstEII-digested Lambda DNA in a total reaction volume of 50 µl in 15 minutes at 45°C.
Packaging Lot Number: 10144150
Expiration Date: 04/2024
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl , 50 mM KCl , 1 mM DTT , 0.1 mM EDTA , 200 µg/ml BSA , 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0208S/L v2.0

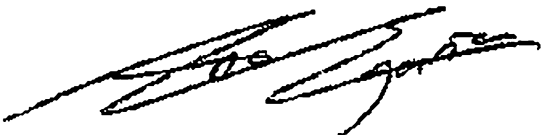
| Taq DNA Ligase Component List | | | |
|-------------------------------|--------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| M0208LVIAL | Taq DNA Ligase | 10144151 | Pass |
| B0208SVIAL | Taq DNA Ligase Reaction Buffer | 10109355 | Pass |

| Assay Name/Specification | Lot # 10144150 |
|---|----------------|
| 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 Taq DNA 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 |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 4 containing 1 µg of Lambda-HindIII DNA and a minimum of 80 units of Taq DNA Ligase 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) Taq DNA Ligase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection. | Pass |
| Exonuclease Activity (Radioactivity Release) | Pass |

| Assay Name/Specification | Lot # 10144150 |
|--|----------------|
| <p>A 50 µl reaction in Taq DNA Ligase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 400 units of Taq DNA Ligase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p> | |
| <p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 400 units of Taq DNA Ligase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | Pass |
| <p>qPCR DNA Contamination (E. coli Genomic) A minimum of 40 units of Taq DNA 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.</p> | Pass |

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

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Ana Egana
Production Scientist
08 Apr 2022



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08 Apr 2022