

## New England Biolabs Certificate of Analysis

**Product Name:** Taq DNA Ligase Reaction Buffer  
**Catalog Number:** B0208S  
**Concentration:** 10 X Concentrate  
**Packaging Lot Number:** 10225707  
**Expiration Date:** 10/2025  
**Storage Temperature:** -20°C  
**Specification Version:** PS-B0208S v2.0  
**Composition (1X):** 20 mM Tris-HCl, 25 mM Potassium Acetate, 10 mM Magnesium Acetate, 1 mM NAD<sup>+</sup>, 10 mM DTT, 0.1% Triton X-100, (pH 7.3 @ 25°C)

| Taq DNA Ligase Reaction Buffer Component List |                                |            |                      |
|---|--------------------------------|------------|----------------------|
| NEB Part Number                               | Component Description          | Lot Number | Individual QC Result |
| B0208SVIAL                                    | Taq DNA Ligase Reaction Buffer | 10154088   | Pass                 |

| Assay Name/Specification   | Lot # 10225707 |
|--|----------------|
| <b>Endonuclease Activity (Nicking, Buffer)</b><br>A 50 µl reaction in 1X Taq DNA Ligase Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.   | Pass           |
| <b>Functional Testing (DNA Ligase Buffer)</b><br>A 50 µl reaction in 1X Taq DNA Ligase Reaction Buffer containing 1 µg of BstEII digested Lambda DNA and 1 unit of Taq DNA Ligase incubated for 15 minutes at 45°C results in approximately 50% ligation of the cohesive ends of the DNA fragments as determined by agarose gel electrophoresis. | Pass           |
| <b>Non-Specific DNase Activity (16 hour, Buffer)</b><br>A 50 µl reaction in 1X Taq DNA Ligase Reaction Buffer containing 1 µg of HaeIII digested PhiX174 RF I DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.                                  | Pass           |
| <b>RNase Activity (Buffer)</b><br>A 10 µl reaction in 1X Taq DNA Ligase Reaction Buffer containing 40 ng of a 300 base single-stranded RNA is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by polyacrylamide gel electrophoresis.   | Pass           |

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

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01 Nov 2022



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24 Jan 2024