

New England Biolabs Certificate of Analysis

Product Name: EcoRI
Catalog Number: R0101L
Concentration: 20,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10052727
Expiration Date: 06/2021
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 10 mM KPO₄ (pH 7.5), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 µg/ml BSA
Specification Version: PS-R0101S/L v2.0

| EcoRI Component List | | | |
|----------------------|------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0101LVIAL | EcoRI | 10046967 | Pass |
| B7024SVIAL | Gel Loading Dye, Purple (6X) | 10043910 | Pass |
| B0101SVIAL | NEBuffer™ EcoRI | 0091905 | Pass |

| Assay Name/Specification | Lot # 10052727 |
|---|----------------|
| Blue-White Screening (Terminal Integrity) A sample of pUC19 vector linearized with a 10-fold excess of EcoRI, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies. | Pass |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in EcoRI Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 200 units of EcoRI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with EcoRI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with EcoRI. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in EcoRI Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of EcoRI incubated for 16 hours at 37°C results in a DNA pattern free of | Pass |

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|---|--------------------|
| <p>detectable nuclease degradation as determined by agarose gel electrophoresis.</p> <p>Protein Purity Assay (SDS-PAGE) EcoRI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p> | <p>Pass</p> |

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



Stephanie Cornelio
Production Scientist
27 Jun 2019



Michael Tonello
Packaging Quality Control Inspector
15 Aug 2019