

New England Biolabs Certificate of Analysis

Product Name: EcoRI
Catalog Number: R0101T
Concentration: 100,000 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.
Packaging Lot Number: 10173186
Expiration Date: 12/2024
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-R0101T/M v3.0

EcoRI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0101TVIAL	EcoRI	10173185	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10175289	Pass
B0101SVIAL	NEBuffer™ EcoRI/Sspl	10156284	Pass

Assay Name/Specification	Lot # 10173186
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
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in 1X NEBuffer EcoRI/Sspl 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
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in 1X NEBuffer EcoRI/Sspl 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 detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) EcoRI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue	Pass

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<p>detection.</p> <p>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.</p>	<p>Pass</p>

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

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YunJie Sun
Production Scientist
04 Jan 2023



Josh Hersey
Packaging Quality Control Inspector
06 Jan 2023