

New England Biolabs Certificate of Analysis

Product Name: EcoRI
Catalog Number: R0101S
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: 10033233
Expiration Date: 10/2020
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

Assay Name/Specification	Lot # 10033233
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 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 detection.	Pass
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	Pass

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can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with EcoRI.	

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



Stephanie Cornelio
Production Scientist
25 Oct 2018



Michael Tonello
Packaging Quality Control Inspector
16 Jan 2019