

## 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.  
**Packaging Lot Number:** 10140539  
**Expiration Date:** 02/2024  
**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-R0101S/L v3.0

EcoRI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0101SVIAL	EcoRI	10140537	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10132772	Pass
B0101SVIAL	NEBuffer™ EcoRI/Sspl	10139482	Pass

Assay Name/Specification	Lot # 10140539
<b>Protein Purity Assay (SDS-PAGE)</b> EcoRI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
<b>Blue-White Screening (Terminal Integrity)</b> 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
<b>Ligation and Recutting (Terminal Integrity)</b> 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
<b>Non-Specific DNase Activity (16 Hour)</b> 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	Pass

Assay Name/Specification	Lot # 10140539
<p>electrophoresis.</p> <p><b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in 1X NEBuffer EcoRI/SspI containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 200 units of EcoRI incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	<p><b>Pass</b></p>

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

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21 Mar 2022




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21 Mar 2022