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New England Biolabs Certificate of Analysis

Product Name: Ecil
Catalog Number: R0590L
Concentration: 2,000 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: 10043323
Expiration Date: 04/2020
Storage Temperature: -20°C

Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 200 µg/ml BSA

Specification Version: PS-R0590S/L v1.0

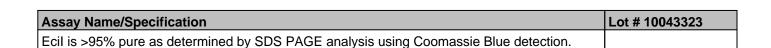
Ecil Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0590LVIAL	Ecil	10043324	Pass	
B7204SVIAL	CutSmart® Buffer	10036668	Pass	

Assay Name/Specification	Lot # 10043323
Exonuclease Activity (Radioactivity Release) A 50 μl reaction in CutSmart™ Buffer containing 1 μg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 2 units of Ecil incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 2-fold over-digestion of Lambda DNA with Ecil, >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 Ecil.	Pass
Non-Specific DNase Activity (16 hour) A 50 μl reaction in CutSmart™ Buffer containing 1 μg of Lambda DNA and a minimum of 2 Units of Ecil incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.	Pass
Protein Purity Assay (SDS-PAGE)	Pass



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

Production Scientist 26 Mar 2019

Michael Tonello
Packaging Quali

Packaging Quality Control Inspector

24 Apr 2019