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## New England Biolabs Certificate of Analysis

Product Name: Eael
Catalog Number: R0508S
Concentration: 5,000 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: 10011004
Expiration Date: 08/2020
Storage Temperature: -20°C

Storage Conditions: 200 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 200 μg/ml BSA

Specification Version: PS-R0508S/L v1.0

Eael Component List				
<b>NEB Part Number</b>	Component Description	Lot Number	Individual QC Result	
R0508SVIAL	Eael	10011005	Pass	
B7204SVIAL	CutSmart® Buffer	10015394	Pass	

Assay Name/Specification	Lot # 10011004
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 25 units of Eael incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with Eael, ~75% 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 Eael.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 15 Units of Eael incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

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



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Tony Spear-Alfonso Production Scientist 23 Jul 2018

Michael Tonello

Packaging Quality Control Inspector

22 Aug 2018