NEW ENGLAND BioLabs Inc.

be INSPIRED
drive DISCOVERY
stay GENUINE

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New England Biolabs
Certificate of Analysis

Product Name:	*EarI*
Catalog Number:	*R0528L*
Concentration:	*20,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to digest 1 μg Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 μl.*
Lot Number:	*10038490*
Expiration Date:	*03/2021*
Storage Temperature:	*-20°C*
Storage Conditions:	*300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 μg/ml BSA*
Specification Version:	*PS-R0528S/L v1.0*

EarI Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
R0528LVIAL	EarI	10038491	**Pass**
B7204SVIAL	CutSmart® Buffer	10021121	**Pass**

Assay Name/Specification	Lot # 10038490
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with EarI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16ºC. Of these ligated fragments, ~75% can be recut with EarI.	**Pass**
Non-Specific DNase Activity (16 Hour) A 50 μl reaction in CutSmart™ Buffer containing 1 μg of Lambda DNA and a minimum of 60 Units of EarI incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
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 60 units of EarI incubated for 4 hours at 37ºC releases <0.1% of the total radioactivity.	**Pass**

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

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Doreen Duquette
Production Scientist
06 Feb 2019

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Michael Tonello
Packaging Quality Control Inspector
01 Mar 2019

R0528L / Lot: 10038490