NEW ENGLAND BioLabs Inc.

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stay GENUINE

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New England Biolabs
Certificate of Analysis

Product Name:	*BsiEI*
Catalog Number:	*R0554S*
Concentration:	*10,000 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 60°C in a total reaction volume of 50 μl.*
Packaging Lot Number:	*10177517*
Expiration Date:	*01/2025*
Storage Temperature:	*-20°C*
Storage Conditions:	*50 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-R0554S/L v2.0*

BsiEI Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
R0554SVIAL	BsiEI	10177516	**Pass**
B6004SVIAL	rCutSmart™ Buffer	10173664	**Pass**

Assay Name/Specification	Lot # 10177517
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 100 units of BsiEI incubated for 4 hours at 60ºC releases <0.1% of the total radioactivity.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BsiEI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16ºC. Of these ligated fragments, >95% can be recut with BsiEI.	**Pass**
Non-Specific DNase Activity (16 Hour) A 50 μl reaction in CutSmart™ Buffer containing 1 μg of Lambda DNA and a minimum of 10 units of BsiEI incubated for 16 hours at 60ºC 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.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

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YunJie Sun
Production Scientist
24 Jan 2023

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Michael Tonello
Packaging Quality Control Inspector
25 Jan 2023