NEW ENGLAND BioLabs Inc.
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240 County Road
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New England Biolabs
Certificate of Analysis

Product Name:	*BsiWI*
Catalog Number:	*R0553S*
Concentration:	*10,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to digest 1 µg of PhiX174 DNA in 1 hour at 55°C in a total reaction volumn of 50 µl.*
Packaging Lot Number:	*10084404*
Expiration Date:	*07/2022*
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-R0553S/L v1.0*

BsiWI Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
R0553SVIAL	BsiWI	10078705	**Pass**
B7203SVIAL	NEBuffer™ 3.1	10085493	**Pass**
B7024AVIAL	Gel Loading Dye, Purple (6X)	10085178	**Pass**

Assay Name/Specification	Lot # 10084404
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of PhiX174 DNA and a minimum of 10 Units of BsiWI incubated for 16 hours at 55ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of PhiX174 DNA with BsiWI, >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 BsiWI.	**Pass**
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 20 units of BsiWI incubated for 4 hours at 55ºC releases <0.1% of the total radioactivity.	**Pass**
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled pUC19 DNA and a	**Pass**

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Assay Name/Specification	Lot # 10084404
minimum of 10 Units of BsiWI incubated for 4 hours at 55ºC results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	

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.

Penghua Zhang
Production Scientist
13 Nov 2020

Josh Hersey
Packaging Quality Control Inspector
13 Nov 2020