

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 volume of 50 µl.
Packaging Lot Number: 10063044
Expiration Date: 12/2021
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-R0553S/L v1.0

BsiWI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0553SVIAL	BsiWI	10061520	Pass
B7203SVIAL	NEBuffer™ 3.1	10053973	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10055732	Pass

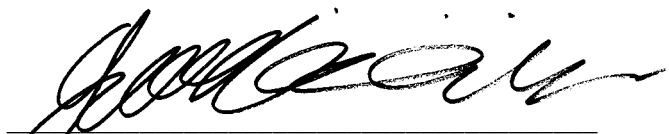
Assay Name/Specification	Lot # 10063044
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of PhiX174 DNA and a minimum of 10 Units of BsiWI incubated for 16 hours at 55°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in 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 55°C 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 minimum of 10 Units of BsiWI incubated for 4 hours at 55°C results in <10% conversion to the nicked form 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	Pass

Assay Name/Specification	Lot # 10063044
can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with BsiWI.	

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



Jianying Luo
Production Scientist
13 Dec 2019



Jay Minichiello
Packaging Quality Control Inspector
02 Jan 2020