NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
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www.neb.com
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New England Biolabs
Certificate of Analysis

Product Name:	*BbsI*
Catalog Number:	*R0539S*
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 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number:	*10137478*
Expiration Date:	*02/2023*
Storage Temperature:	*-80°C*
Storage Conditions:	*300 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 300 µg/ml BSA*
Specification Version:	*PS-R0539S/L v2.0*

BbsI Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
R0539SVIAL	BbsI	10137477	**Pass**
B7024AVIAL	Gel Loading Dye, Purple (6X)	10131976	**Pass**
B6002SVIAL	NEBuffer™ r2.1	10103928	**Pass**

Assay Name/Specification	Lot # 10137478
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 50 units of BbsI incubated for 4 hours at 37ºC releases <0.1% of the total radioactivity.	**Pass**
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of supercoiled pUC19 DNA and a minimum of 10 units of BbsI incubated for 4 hours at 37ºC results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with BbsI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 4 hours hours at 25ºC. Of these ligated fragments, >95% can be recut with BbsI.	**Pass**
Non-Specific DNase Activity (16 Hour) A 50 ul reaction in NEBuffer 2.1 containing 1 ug of Lambda DNA and a minimum of 50 units of BbsI incubated for 16 hours at 37ºC results in a DNA pattern free of	**Pass**

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Assay Name/Specification	Lot # 10137478
detectable nuclease degradation 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
01 Mar 2022

Michael Tonello
Packaging Quality Control Inspector
01 Mar 2022