

## 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:** 10123733  
**Expiration Date:** 11/2022  
**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	10127326	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10121392	Pass
B6002SVIAL	NEBuffer™ r2.1	10103928	Pass

Assay Name/Specification	Lot # 10123733
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 2.1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of BbsI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Endonuclease Activity (Nicking)</b> 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 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> 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 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> 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 25°C. Of these ligated	Pass

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fragments, >95% can be recut with BbsI.	

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](http://www.neb.com/trademarks) for additional information.

  
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09 Nov 2021

  
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