

## New England Biolabs Certificate of Analysis

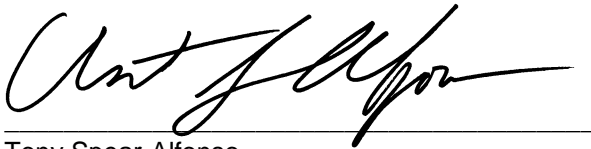
**Product Name:** BbsI  
**Catalog Number:** R0539L  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot Number:** 10021731  
**Expiration Date:** 09/2019  
**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
R0539LVIAL	BbsI	10020942	Pass
B7202SVIAL	NEBuffer™ 2.1	0261805	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10018419	Pass

Assay Name/Specification	Lot # 10021731
<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>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>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 at 25°C. Of these ligated fragments, >95% can be recut with BbsI.	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	Pass

Assay Name/Specification	Lot # 10021731
detectable nuclease degradation as determined by agarose gel electrophoresis.	

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



Tony Spear-Alfonso  
Production Scientist  
27 Aug 2018



Michael Tonello  
Packaging Quality Control Inspector  
19 Sep 2018