

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: 10083544
Expiration Date: 07/2021
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	10078351	Pass
B7202SVIAL	NEBuffer™ 2.1	10070034	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10084970	Pass

Assay Name/Specification	Lot # 10083544
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 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
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 37°C releases <0.1% of the total radioactivity.	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 at 25°C. 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 37°C results in a DNA pattern free of	Pass

Assay Name/Specification	Lot # 10083544
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.



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14 Oct 2020



Michael Tonello
Packaging Quality Control Inspector
14 Oct 2020