NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

New England Biolabs
Certificate of Analysis

Product Name:	*BsmBI*
Catalog Number:	*R0580S*
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 55°C in a total reaction volume of 50 µl.*
Lot Number:	*10039733*
Expiration Date:	*09/2020*
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-R0580S/L v1.0*

BsmBI Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
R0580SVIAL	BsmBI	10022322	**Pass**
B7203SVIAL	NEBuffer™ 3.1	10033149	**Pass**
B7024SVIAL	Gel Loading Dye, Purple (6X)	10021133	**Pass**

Assay Name/Specification	Lot # 10039733
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 Units of BsmBI incubated for 4 hours at 55ºC 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 3.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of BsmBI incubated for 4 hours at 55ºC releases <0.1% of the total radioactivity.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BsmBI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16ºC. Of these ligated fragments, >95% can be recut with BsmBI.	**Pass**
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 10 Units of BsmBI incubated for 16 hours at 55ºC results in a DNA pattern free of	**Pass**

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Assay Name/Specification	Lot # 10039733
detectable nuclease degradation as determined by agarose gel electrophoresis.	

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

Jianying Luo
Production Scientist
26 Sep 2018

Michael Tonello
Packaging Quality Control Inspector
28 Mar 2019