NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
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New England Biolabs
Certificate of Analysis

Product Name:	*BsaBI*
Catalog Number:	*R0537S*
Concentration:	*10,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (dam-) in 1 hour at 60°C in a total reaction volume of 50 µl.*
Packaging Lot Number:	*10107807*
Expiration Date:	*05/2023*
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-R0537S/L v1.0*

BsaBI Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
R0537SVIAL	BsaBI	10107805	**Pass**
B6004SVIAL	rCutSmart™ Buffer	10108412	**Pass**

Assay Name/Specification	**Lot # 10107807**
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 100 units of BsaBI incubated for 4 hours at 60ºC releases <0.1% of the total radioactivity.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda dam- DNA with BsaBI, >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 BsaBI.	**Pass**
Protein Purity Assay (SDS-PAGE) BsaBI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
Non-Specific DNase Activity (16 hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda dam- DNA and a minimum of 10 units of BsaBI incubated for 16 hours at 60ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel	**Pass**

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Assay Name/Specification	Lot # 10107807
electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.	

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
14 Jun 2021

Michael Tonello
Packaging Quality Control Inspector
14 Jun 2021