

*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:	Bsll
Catalog Number:	R0555L
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 rCutSmart Buffer in 1 hour at 37°C in a total reaction volume of 50 μl.
Packaging Lot Number:	10228973
Expiration Date:	01/2026
Storage Temperature:	-20°C
Storage Conditions:	10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 μg/ml rAlbumin (pH 7.4 @ 25°C)
Specification Version:	PS-R0555S/L v2.0

BsII Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0555LVIAL	Bsll	10225971	Pass	
B6004SVIAL	rCutSmart™ Buffer	10224150	Pass	

Assay Name/Specification	Lot # 10228973
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in rCutSmart™ Buffer 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 BsII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Functional Testing (15 minute Digest) A 50 µl reaction in rCutSmart <sup>™</sup> Buffer containing 1 µg of Lambda DNA and 1 µl of Bsll incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of Lambda DNA with BsII, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with BsII.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 30 units of BsII incubated for 16 hours at 37°C results in a DNA pattern free of	Pass





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

Assay Name/Specification	Lot # 10228973
detectable nuclease degradation as determined by agarose gel electrophoresis.	
<b>qPCR DNA Contamination (E. coli Genomic)</b> A minimum of 10 units of BsII is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is $\leq$ 1 E. coli genome.	Pass

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.

YunJie Sun

Production Scientist 12 Jan 2024

Ton, M Michae

Michael Tonello Packaging Quality Control Inspector 23 Jan 2024

