NEW ENGLAND BioLabs Inc.
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New England Biolabs
Certificate of Analysis

Product Name:	*BstEII*
Catalog Number:	*R0162S*
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 60°C in a total reaction volume of 50 µl.*
Packaging Lot Number:	*10086406*
Expiration Date:	*09/2022*
Storage Temperature:	*-20°C*
Storage Conditions:	*50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*
Specification Version:	*PS-R0162S/L v1.0*

BstEII Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
R0162SVIAL	BstEII	10082798	**Pass**
B7203SVIAL	NEBuffer™ 3.1	10085493	**Pass**

Assay Name/Specification	**Lot # 10086406**
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 50 Units of BstEII incubated for 16 hours at 60ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BstEII, >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 BstEII.	**Pass**
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 50 units of BstEII incubated for 4 hours at 60ºC releases <0.1% of the total radioactivity.	**Pass**
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 units of BstEII incubated for 4 hours at 60ºC results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	**Pass**

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

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Stephanie Cornelio
Production Scientist
11 Nov 2020

Michael Tonello
Packaging Quality Control Inspector
11 Nov 2020