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## New England Biolabs Certificate of Analysis

Product Name: BstEII-HF®
Catalog Number: R3162M
Concentration: 100,000 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.

Lot Number: 10045516
Expiration Date: 05/2021
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-R3162M v1.0

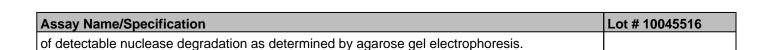
BstEII-HF® Component List				
<b>NEB Part Number</b>	Component Description	Lot Number	Individual QC Result	
R3162MVIAL	BstEII-HF®	10045513	Pass	
B7204SVIAL	CutSmart® Buffer	10036669	Pass	
B7024SVIAL	Gel Loading Dye, Purple (6X)	10021142	Pass	

Assay Name/Specification	Lot # 10045516
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 60 units of BstEll-HF™ incubated for 4 hours at 37°C results in <10%	Pass
conversion to the nicked form as determined by agarose gel electrophoresis.  Exonuclease Activity (Radioactivity Release)  A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 60 units of BstEII-HF™ incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity)  After a 10-fold over-digestion of Lambda DNA with BstEII-HF™, >95% 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 BstEII-HF™.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 60 units of BstEll-HF™ incubated for 16 hours at 37°C results in a DNA pattern free	Pass



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

Jianying Luo Production Scientist

15 May 2019

Michael Tonello

Packaging Quality Control Inspector

15 May 2019

