

New England Biolabs Certificate of Analysis

Product Name: BstEII-HF[®]
Catalog Number: R3162S
Concentration: 20,000 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: 10010068
Expiration Date: 05/2020
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-R3162S/L v1.0

BstEII-HF [®] Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3162SVIAL	BstEII-HF [®]	10010069	Pass
B7204SVIAL	CutSmart [®] Buffer	3071804	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	0241804	Pass

Assay Name/Specification	Lot # 10010068
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart [™] Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 60 units of BstEII-HF [™] incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	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 BstEII-HF [™] incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
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 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	Pass

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fragments, >95% can be recut with BstEII-HF™.	

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



Jianying Luo
Production Scientist
30 May 2018



Michael Tonello
Packaging Quality Control Inspector
04 Jun 2018