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New England Biolabs Certificate of Analysis

Product Name: Bcll-HF®
Catalog Number: R3160S
Concentration: 20,000 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 37°C in a total reaction volume of

50 μl.

Lot Number: 10011639
Expiration Date: 06/2020
Storage Temperature: -20°C

Storage Conditions: 300 mM NaCl , 10 mM Tris-HCl , 1 mM DTT , 0.1 mM EDTA , 50 %

Glycerol , 500 μg/ml BSA, (pH 7.4 @ 25°C)

Specification Version: PS-R3160S/L v1.0

Bcll-HF® Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R3160SVIAL	Bcll-HF®	10011640	Pass	
B7204SVIAL	CutSmart® Buffer	3081804	Pass	
B7024SVIAL	Gel Loading Dye, Purple (6X)	0231804	Pass	

Assay Name/Specification	Lot # 10011639
Protein Purity Assay (SDS-PAGE) Bcll-HF is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue	Pass
Non-Specific DNase Activity (16 Hour)	Pass
A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda dam- DNA and a minimum of 60 units of Bcll-HF incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	1 433
Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda dam- DNA with BcII-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 BcII-HF.	Pass
Functional Testing (15 minute Digest) A 50 μl reaction in CutSmart® Buffer containing 1 μg of Lambda dam- DNA and 1 μl of	Pass



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Assay Name/Specification	Lot # 10011639
BcII-HF incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis.	
Exonuclease Activity (Radioactivity Release)	Pass
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 100 units of Bcll-HF incubated	
for 4 hours at 37°C releases <0.1% of the total radioactivity.	

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

Anthony Francis
Production Scientist

28 Jun 2018

Josh Hersey

Packaging Quality Control Inspector

02 Jul 2018



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