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New England Biolabs Certificate of Analysis

Product Name: Bsal-HF®v2
Catalog Number: R3733S
Concentration: 20,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg

of pXba DNA in 1 hour at 37°C in a total reaction volume of 50 μl.

Packaging Lot Number: 10058738
Expiration Date: 07/2021
Storage Temperature: -20°C

Storage Conditions: 10 mM Tris-HCl, 200 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 200 µg/ml BSA,

50 % Glycerol, (pH 7.4 @ 25°C)

Specification Version: PS-R3733S/L v1.0

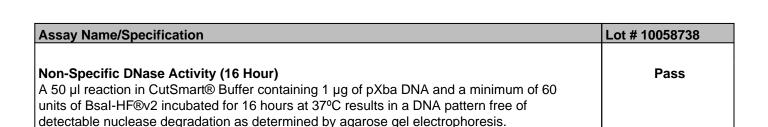
Bsal-HF®v2 Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R3733SVIAL	Bsal-HF®v2	10050316	Pass	
B7204SVIAL	CutSmart® Buffer	10053983	Pass	
B7024SVIAL	Gel Loading Dye, Purple (6X)	10053978	Pass	

Assay Name/Specification	Lot # 10058738
Protein Purity Assay (SDS-PAGE)	Pass
Bsal-HF®v2 is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	
Endonuclease Activity (Nicking)	Pass
A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 20 units of Bsal-HF®v2 incubated for 4 hours at 37°C results in <20%	
conversion to the nicked form 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 Bsal-HF®v2 incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	
Ligation and Recutting (Terminal Integrity)	Pass
After a 20-fold over-digestion of pXba DNA with Bsal-HF®v2, >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 Bsal-HF®v2.	



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

Penghua Zhang

Production Scientist

19 Jul 2019

Jay Minichiello

Packaging Quality Control Inspector

20 Nov 2019

