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New England Biolabs Certificate of Analysis

Product Name: BsmBl
Catalog Number: R0580S
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 55°C in a total reaction volume of 50 μl.

Lot Number: 10027625
Expiration Date: 09/2020
Storage Temperature: -20°C

Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 500 μg/ml BSA

Specification Version: PS-R0580S/L v1.0

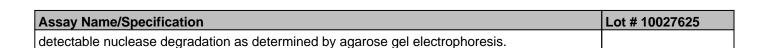
BsmBl Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0580SVIAL	BsmBI	10022322	Pass	
B7203SVIAL	NEBuffer™ 3.1	10021111	Pass	
B7024SVIAL	Gel Loading Dye, Purple (6X)	10018416	Pass	

Assay Name/Specification	Lot # 10027625
Endonuclease Activity (Nicking) A 50 μl reaction in NEBuffer 3.1 containing 1 μg of supercoiled PhiX174 DNA and a minimum of 10 Units of BsmBl incubated for 4 hours at 55°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of BsmBl incubated for 4 hours at 55°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BsmBI, >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 BsmBI.	Pass
Non-Specific DNase Activity (16 Hour) A 50 μl reaction in NEBuffer 3.1 containing 1 μg of Lambda DNA and a minimum of 10 Units of BsmBl incubated for 16 hours at 55°C results in a DNA pattern free of	Pass



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

Tony Spear-Alfonso **Production Scientist**

26 Sep 2018

Michael Tonello

Packaging Quality Control Inspector

01 Nov 2018

