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New England Biolabs Certificate of Analysis

Product Name: Bgll
Catalog Number: R0143S
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 37°C in a total reaction volume of 50 μl.

Packaging Lot Number: 10086410
Expiration Date: 10/2022
Storage Temperature: -20°C

Storage Conditions: 200 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 200 μg/ml BSA

Specification Version: PS-R0143S/L v1.0

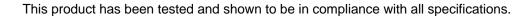
BgII Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0143SVIAL	Bgll	10086411	Pass	
B7203SVIAL	NEBuffer™ 3.1	10085493	Pass	

Assay Name/Specification	Lot # 10086410
Non-Specific DNase Activity (16 Hour) A 50 μl reaction in NEBuffer 3.1 containing 1 μg of Lambda DNA and a minimum of 50	Pass
units of Bgll incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	
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 Bgll incubated for 4 hours at 37°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 100 units of Bgll incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 50-fold over-digestion of Lambda DNA with BgII, >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 BgII.	Pass



R0143S / Lot: 10086410

Page 1 of 2



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Penghaa Zhang Production Scientist

13 Nov 2020

Josh Hersey

Packaging Quality Control Inspector

13 Nov 2020



R0143S / Lot: 10086410

Page 2 of 2