

*be* INSPIRED *drive* DISCOVERY *stay* GENUINE

240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## 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 $\mu$ g of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 $\mu$ l.
Packaging Lot Number:	10188476
Expiration Date:	05/2025
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	10188471	Pass	
B6003SVIAL	NEBuffer™ r3.1	10182163	Pass	

Assay Name/Specification	Lot # 10188476
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled PhiX174 DNA and a	Pass
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.	
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 100 units of BgII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> 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
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 $\mu$ I reaction in NEBuffer 3.1 containing 1 $\mu$ g of Lambda DNA and a minimum of 50 units of BgII incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass





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

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YunJie Sun Production Scientist 18 May 2023

Michae 11.

Michael Tonello Packaging Quality Control Inspector 31 May 2023

