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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.

Lot Number: 10027647
Expiration Date: 11/2020
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 | 10027646 | Pass | |
| B7203SVIAL | NEBuffer™ 3.1 | 10021111 | Pass | |

| Assay Name/Specification | Lot # 10027647 |
|--|----------------|
| 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 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. | Pass |
| 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 Bgll, >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 Bgll. | Pass |



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

Tony Spear-Alfonso Production Scientist

11 Oct 2018

Josh Hersey

Packaging Quality Control Inspector

07 Nov 2018



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