

New England Biolabs Certificate of Analysis

Product Name: *BclI*
Catalog Number: *R0160S*
Concentration: *10,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (dam-) in NEBuffer r3.1 in 1 hour at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10228333*
Expiration Date: *12/2025*
Storage Temperature: *-20°C*
Storage Conditions: *10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml rAlbumin (pH 7.4 @ 25°C)*
Specification Version: *PS-R0160S v2.0*

BclI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0160SVIAL	BclI	10222157	Pass
B6003SVIAL	NEBuffer™ r3.1	10221488	Pass

Assay Name/Specification	Lot # 10228333
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 100 units of BclI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Functional Testing (15 minute Digest) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of Lambda dam- DNA and 1 µl of BclI incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda dam- DNA with BclI, >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 BclI.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of Lambda dam- DNA and a minimum of 30 units of BclI incubated for 16 hours at 37°C results in a DNA pattern free of</p>	Pass

Assay Name/Specification	Lot # 10228333
detectable nuclease degradation as determined by agarose gel electrophoresis.	
Protein Purity Assay (SDS-PAGE) BclI is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
qPCR DNA Contamination (E. coli Genomic) A minimum of 10 units of BclI is screened for the presence of E. coli genomic DNA using SYBR [®] Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.	Pass

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

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YunJie Sun
Production Scientist
12 Jan 2024



Josh Hersey
Packaging Quality Control Inspector
18 Jan 2024