

New England Biolabs Certificate of Analysis

Product Name: BfuAI
Catalog Number: R0701L
Concentration: 5,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in NEBuffer™ r3.1 in 1 hour at 50°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10251537
Expiration Date: 06/2026
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 300 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml rAlbumin (pH 7.4 @ 25°C)
Specification Version: PS-R0701S/L v2.0

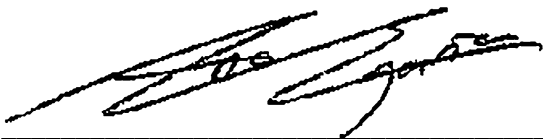
BfuAI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0701LVIAL	BfuAI	10245430	Pass
B6003SVIAL	NEBuffer™ r3.1	10237086	Pass

Assay Name/Specification	Lot # 10251537
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 15 units of BfuAI incubated for 4 hours at 50°C releases <0.1% of the total radioactivity.	Pass
Functional Testing (15 minute Digest) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of Lambda DNA and 1 µl of BfuAI incubated for 15 minutes at 50°C results in complete digestion as determined by agarose gel electrophoresis.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BfuAI, >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 BfuAI.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of Lambda DNA and a minimum of 15 units of BfuAI incubated for 16 hours at 50°C results in a DNA pattern free of	Pass

Assay Name/Specification	Lot # 10251537
detectable nuclease degradation as determined by agarose gel electrophoresis.	
Protein Purity Assay (SDS-PAGE) BfuAI is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion) A 10 μ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 5 units of BfuAI is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Yanxia Bei
Production Scientist
16 Aug 2024



Michael Tonello
Packaging Quality Control Inspector
16 Aug 2024