

New England Biolabs Certificate of Analysis

Product Name: BtgZI
Catalog Number: R0703L
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 1 hour at 60°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10143519
Expiration Date: 03/2024
Storage Temperature: -20°C
Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA
Specification Version: PS-R0703S/L v1.0

BtgZI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0703LVIAL	BtgZI	10143520	Pass
B6004SVIAL	rCutSmart™ Buffer	10143289	Pass

Assay Name/Specification	Lot # 10143519
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled pUC19 DNA and a minimum of 5 Units of BtgZI incubated for 4 hours at 60°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 5 units of BtgZI incubated for 4 hours at 60°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 5 Units of BtgZI incubated for 16 hours at 60°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Ligation and Recutting (Terminal Integrity) After a 5-fold over-digestion of Lambda DNA with BtgZI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with BtgZI.	Pass

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

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14 Apr 2022



Michael Tonello
Packaging Quality Control Inspector
14 Apr 2022