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New England Biolabs Certificate of Analysis

Product Name: BtgZl
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: 10124035 Expiration Date: 10/2023 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

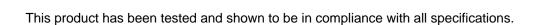
BtgZl Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0703LVIAL	BtgZl	10124040	Pass	
B6004SVIAL	rCutSmart™ Buffer	10121395	Pass	

Assay Name/Specification	Lot # 10124035
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled pUC19 DNA and a minimum of 5 Units of BtgZl 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 [³H] E. coli DNA and a minimum of 5 units of BtgZl 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 BtgZl 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



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Penghaa Zhang Production Scientist

05 Oct 2021

Josh Hersey

Packaging Quality Control Inspector

05 Oct 2021

