

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: 10075683
Expiration Date: 06/2022
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	10075682	Pass
B7204SVIAL	CutSmart® Buffer	10069110	Pass

Assay Name/Specification	Lot # 10075683
<p>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.</p>	Pass
<p>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.</p>	Pass
<p>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 BtgZI incubated for 4 hours at 60°C releases <0.1% of the total radioactivity.</p>	Pass
<p>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.</p>	Pass

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



Penghua Zhang
Production Scientist
20 Jul 2020



Michael Tonello
Packaging Quality Control Inspector
20 Jul 2020