

New England Biolabs Certificate of Analysis

Product Name: BtsCI
Catalog Number: R0647S
Concentration: 20,000 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 50°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10070046
Expiration Date: 03/2022
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA
Specification Version: PS-R0647S/L v1.0

BtsCI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0647SVIAL	BtsCI	10070045	Pass
B7204SVIAL	CutSmart® Buffer	10071077	Pass

Assay Name/Specification	Lot # 10070046
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 200 units of BtsCI incubated for 4 hours at 50°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BtsCI, >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 BtsCI.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 60 Units of BtsCI incubated for 16 hours at 50°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) BtsCI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass

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



Pengda Zhang
Production Scientist
21 Apr 2020



Jay Minichiello
Packaging Quality Control Inspector
21 Apr 2020