

New England Biolabs Certificate of Analysis

Product Name: Bts(alpha)I
Catalog Number: R0667S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of LambdaDNA in 1 hour at 55°C in a total reaction volume of 50 µl.
Lot Number: 10008631
Expiration Date: 04/2020
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-R0667S/L v1.0

Bts(alpha)I Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0667SVIAL	Bts(alpha)I	0031804	Pass
B7204SVIAL	CutSmart® Buffer	10010634	Pass

Assay Name/Specification	Lot # 10008631
Protein Purity Assay (SDS-PAGE) BtsαI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BtsαI, >95% 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 BtsαI.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 10 units of BtsαI incubated for 16 hours at 55°C results in a DNA pattern free of detectable nuclease degradation 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 50 units of BtsαI incubated for 4 hours at 55°C releases <0.1% of the total radioactivity.	Pass

Assay Name/Specification	Lot # 10008631
<p>Functional Test (15 minute Digest) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and 1 µl of Btsal incubated for 15 minutes at 55°C results in complete digestion as determined by agarose gel electrophoresis.</p>	<p>Pass</p>

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



Tony Spear-Alfonso
Production Scientist
13 Jun 2018



Josh Hersey
Packaging Quality Control Inspector
06 Jul 2018