

New England Biolabs Certificate of Analysis

Product Name: BtsαI
Catalog #: R0667S/L
Concentration: 10,000 units/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 #: 0031412
Assay Date: 12/2014
Expiration Date: 12/2016
Storage Temp: -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
Effective Date: 24 Nov 2014

Assay Name/Specification (minimum release criteria)	Lot #0031412
Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 50 units of BtsαI incubated for 4 hours at 55°C releases <0.1% of the total radioactivity.	Pass
Functional Test (15 minute Digest) - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and 1 µl of BtsαI incubated for 15 minutes at 55°C results in complete digestion as determined by agarose gel electrophoresis.	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
Protein Purity Assay (SDS-PAGE) - BtsαI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass

New England Biolabs Certificate of Analysis

* The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.



Authorized by
Derek Robinson
24 Nov 2014



Inspected by
Casey Madinger
06 Jan 2015

