

New England Biolabs Certificate of Analysis

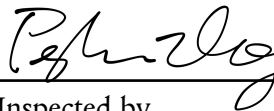
Product Name: Bts α I
Catalog #: R0667S/L
Concentration: 10,000 units/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 μ g of LambdaDNA in 1 hour at 55°C in a total reaction volume of 50 μ l.
Lot #: 0031605
Assay Date: 05/2016
Expiration Date: 5/2018
Storage Temp: -20°C
Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 μ g/ml BSA
Specification Version: PS-R0667S/L v1.0
Effective Date: 24 Nov 2014

Assay Name/Specification (minimum release criteria)	Lot #0031605
Exonuclease Activity (Radioactivity Release) - A 50 μ l reaction in CutSmart™ Buffer containing 1 μ g of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 50 units of Bts α I incubated for 4 hours at 55°C releases <0.1% of the total radioactivity.	Pass
Functional Test (15 minute Digest) - A 50 μ l reaction in CutSmart™ Buffer containing 1 μ g of Lambda DNA and 1 μ l of Bts α I 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 Bts α I, >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 Bts α I.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 μ l reaction in CutSmart™ Buffer containing 1 μ g of Lambda DNA and a minimum of 10 units of Bts α I 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) - Bts α I is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass

* 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
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10 May 2016

