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New England Biolabs Certificate of Analysis

Product Name:	BsaHI
Catalog #:	R0556S/L
Concentration:	10,000 units/ml
Unit Definition:	One unit is defined as the amount of enzyme required to digest 1 μg of Lambda DNA in 1 hour at 37°C in 50 μl of reaction buffer.
Lot #:	0081509
Assay Date:	09/2015
Expiration Date:	9/2017
Storage Temp:	-20°C
Storage Conditions:	250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 μg/ml BSA
Specification Version:	PS-R0556S/L v1.0
Effective Date:	10 Jun 2013

Assay Name/Specification (minimum release criteria)	Lot #0081509
Exonuclease Activity (Radioactivity Release) - A 50 μ l reaction in CutSmart TM Buffer containing 1 μ g of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 100 units of BsaHI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) - After a 10-fold over-digestion of Lambda DNA with BsaHI, >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 BsaHI.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in CutSmart [™] Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of BsaHI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	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.

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Authorized by Derek Robinson 10 Jun 2013



Joby F. Uns Inspected by

Inspected by Toby Claus 29 Sep 2015