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New England Biolabs Certificate of Analysis

Product Name: **BsiHKAI** Catalog #: R0570M

Concentration: 50,000 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 65°C in a total reaction

volume of 50 μ l.

0051509 *Lot* #: 09/2015 Assay Date: 9/2017 Expiration Date: Storage Temp: -20°C

Storage Buffer: 50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 μg/ml BSA

Specification Version: PS-R0570M v1.0 Effective Date: 11 Oct 2013

Assay Name/Specification (minimum release criteria)	Lot #0051509
Exonuclease Activity (Radioactivity Release) - A 50 μl reaction in CutSmart TM Buffer containing 1 μg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 100 units of BsiHKAI incubated for 4 hours at 65°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) - After a 10-fold over-digestion of Lambda DNA with BsiHKAI, >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 BsiHKAI.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 μl reaction in CutSmart TM Buffer containing 1 μg of Lambda DNA and a minimum of 100 Units of BsiHKAI incubated for 16 hours at 65°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.

Authorized by Derek Robinson

11 Oct 2013 ISO 9001





Inspected by Toby Claus 04 Feb 2016