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New England Biolabs Certificate of Analysis

Product Name: AfIII

Catalog #: R0541S/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 a total reaction

volume of 50 μ l.

 Lot #:
 0341609

 Assay Date:
 09/2016

 Expiration Date:
 09/2018

 Storage Temp:
 -20°C

Storage Conditions: 500 mM NaCl, 10 mM Tris-HCl (7.4), 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA

Specification Version: PS-R0541S/L v1.0
Effective Date: 20 Jun 2016

Assay Name/Specification (minimum release criteria)	Lot #0341609
Exonuclease Activity (Radioactivity Release) - A 50 μ l reaction in NEBuffer 3.1 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 AfIIII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) - After a 5-fold over-digestion of Lambda DNA with AfIIII, >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 AfIIII.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 μl reaction in NEBuffer 3.1 containing 1 μg of Lambda DNA and a minimum of 30 Units of AfIIII 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.

Authorized by Derek Robinson 20 Jun 2016







Inspected by Stephanie Cornelio 22 Sep 2016

Stephani Onetto