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New England Biolabs Certificate of Analysis

Product Name:	AflIII
Catalog #:	R0541S/L
Concentration:	10,000 units/ml
Unit Definition:	One unit is defined as the amount of enzyme required to digest 1 μ g of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 μ l.
Lot #:	0341610
Assay Date:	10/2016
Expiration Date:	10/2018
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 $\mu\mathrm{g}$ /ml BSA
Specification Version:	PS-R0541S/L v1.0
Effective Date:	20 Jun 2016

Assay Name/Specification (minimum release criteria)	Lot #0341610
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 AfIII.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 μ l reaction in NEBuffer 3.1 containing 1 μ g 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.

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Authorized by Derek Robinson 20 Jun 2016



Koeri Sakowshi

Inspected by Kerri Sakowski 23 Aug 2017