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New England Biolabs Certificate of Analysis

Product Name: AvaII

Catalog #: R0153T/M 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 37°C in a total reaction

volume of 50 µl.

Lot #: 0421505 05/2015 Assay Date: Expiration Date: 5/2017 -20°C Storage Temp:

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

Specification Version: PS-R0153T/M v1.0 Effective Date: 07 May 2013

Lot #0421505 Assay Name/Specification (minimum release criteria) Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in CutSmartTM Buffer containing 1 µg of a mixture of single and double-stranded [3H] E. coli DNA and a minimum of 100 units of AvaII incubated for 4 Pass hours at 37°C releases <0.1% of the total radioactivity. Ligation and Recutting (Terminal Integrity) - After a 20-fold over-digestion of Lambda DNA with AvaII, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated Pass fragments, >95% can be recut with AvaII. Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in CutSmartTM Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of AvaII incubated for 16 hours at 37°C results in a DNA pattern Pass free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Authorized by Derek Robinson

07 May 2013 nga ISO 9001





Inspected by Terry Petronzio 05 Jun 2015

Theren R. Rokini

^{*} 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.