

New England Biolabs Certificate of Analysis

Product Name: AatII

Catalog Number: R0117L

Concentration: 20,000 U/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.

Packaging Lot Number: 10251574

Expiration Date: 07/2026

Storage Temperature: -20°C

Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA

Specification Version: PS-R0117S/L v1.0

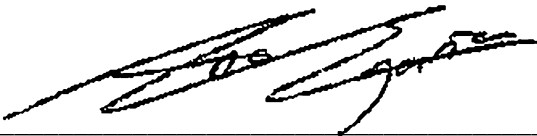
AatII Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0117LVIAL	AatII	10246204	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10236424	Pass
B6004SVIAL	rCutSmart™ Buffer	10245413	Pass

Assay Name/Specification	Lot # 10251574
<p>Blue-White Screening (Terminal Integrity) A sample of pUC19 vector linearized with a 10-fold excess of AatII, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.</p>	Pass
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled Litmus38i DNA and a minimum of 20 Units of AatII incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 60 units of AatII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with AatII, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments,</p>	Pass

Assay Name/Specification	Lot # 10251574
<p>>95% can be recut with AatII.</p> <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 60 Units of AatII incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	<p>Pass</p>

This product has been tested and shown to be in compliance with all specifications.

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Production Scientist
18 Jul 2024



Michael Tonello
Packaging Quality Control Inspector
18 Jul 2024