

## New England Biolabs Certificate of Analysis

**Product Name:** *AgeI*  
**Catalog #:** R0552S/L  
**Concentration:** 5,000 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 of 50 µl.  
**Lot #:** 0431411  
**Assay Date:** 11/2014  
**Expiration Date:** 11/2016  
**Storage Temp:** -20 °C  
**Storage Conditions:** 250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 µg/ml BSA  
**Specification Version:** PS-R0552S/L v1.0  
**Effective Date:** 10 Apr 2013

Assay Name/Specification (minimum release criteria)	Lot #0431411
<b>Blue-White Screening (Terminal Integrity)</b> - A sample of LITMUS28i vector linearized with a 10-fold excess of AgeI, religated and transformed into an <i>E. coli</i> strain expressing the LacZ beta fragment gene results in <1% white colonies.	<b>Pass</b>
<b>Exonuclease Activity (Radioactivity Release)</b> - A 50 µl reaction in NEBuffer 1.1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] <i>E. coli</i> DNA and a minimum of 50 units of AgeI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<b>Ligation and Recutting (Terminal Integrity)</b> - After a 10-fold over-digestion of Lambda DNA with AgeI, >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 AgeI.	<b>Pass</b>
<b>Non-Specific DNase Activity (16 hour)</b> - A 50 µl reaction in NEBuffer 1.1 containing 1 µg of Lambda DNA and a minimum of 5 Units of AgeI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.	<b>Pass</b>



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\* 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.

M. W. Southworth

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Authorized by  
Maurice Southworth  
10 Apr 2013



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Inspected by  
Jianying Luo  
09 Dec 2014

