

## New England Biolabs Certificate of Analysis

**Product Name:** *Nt.AlwI*  
**Catalog #:** R0627S/L  
**Concentration:** 10,000 units/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to convert 1 µg of supercoiled pUC101 DNA (*dam*-/*dcm*-) to open circular form in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot #:** 0011711  
**Assay Date:** 11/2017  
**Expiration Date:** 11/2019  
**Storage Temp:** -20°C  
**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-R0627S/L v2.0  
**Effective Date:** 07 Mar 2014

Assay Name/Specification (minimum release criteria)	Lot #0011711
<b>Exonuclease Activity (Radioactivity Release)</b> - A 50 µl reaction in CutSmart™ Buffer 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 Nt.AlwI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<b>Non-Specific DNase Activity (16 hour)</b> - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pUC101 <i>dam-dcm</i> - DNA and a minimum of 10 units of Nt.AlwI 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>

\* 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  
07 Mar 2014



Inspected by  
Anthony Francis  
22 Nov 2017

