

## 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 #:* 0011305  
*Assay Date:* 05/2013  
*Expiration Date:* 05/2015  
*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 #0011305
<p><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 &lt;0.1% of the total radioactivity.</p>	<b>Pass</b>
<p><b>Non-Specific DNase Activity (16 hour)</b> - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pUC101dam-dcm- 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.</p>	<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  
Emma Jean Hess  
07 Mar 2014

