

## New England Biolabs Product Specification

<i>Product Name:</i>	<i>Nt.AlwI</i>
<i>Catalog #:</i>	<i>R0627S/L</i>
<i>Concentration:</i>	<i>10,000 units/ml</i>
<i>Unit Definition:</i>	<i>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.</i>
<i>Shelf Life:</i>	<i>24 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA</i>
<i>Specification Version:</i>	<i>PS-R0627S/L v2.0</i>
<i>Effective Date:</i>	<i>07 Mar 2014</i>

### Assay Name/Specification (minimum release criteria)

**Exonuclease Activity (Radioactivity Release)** - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] *E. coli* DNA and a minimum of 50 units of Nt.AlwI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.

**Non-Specific DNase Activity (16 hour)** - 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.

\* 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.



Date 07 Mar 2014

Derek Robinson  
Director of Quality Control

