

## New England Biolabs Certificate of Analysis

**Product Name:** Nt.AlwI  
**Catalog Number:** R0627S  
**Concentration:** 10,000 U/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 Number:** 10043414  
**Expiration Date:** 04/2021  
**Storage Temperature:** -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

Nt.AlwI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0627SVIAL	Nt.AlwI	10043415	Pass
B7204SVIAL	CutSmart® Buffer	10042783	Pass

Assay Name/Specification	Lot # 10043414
<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>	Pass
<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] E. coli 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>	Pass

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



Doreen Duquette  
Production Scientist  
24 Apr 2019



Josh Hersey  
Packaging Quality Control Inspector  
10 May 2019