

## 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.  
**Packaging Lot Number:** 10107779  
**Expiration Date:** 05/2023  
**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	10107778	Pass
B6004SVIAL	rCutSmart™ Buffer	10105820	Pass

Assay Name/Specification	Lot # 10107779
<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.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



Pengda Zhang  
Production Scientist  
04 May 2021



Josh Hersey  
Packaging Quality Control Inspector  
04 May 2021