

## New England Biolabs Certificate of Analysis

**Product Name:** AlwI  
**Catalog Number:** R0513L  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (dam-) in 1 hour at 37°C in total reaction volume of 50 µl.  
**Packaging Lot Number:** 10105209  
**Expiration Date:** 04/2023  
**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-R0513S/L v1.0

AlwI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0513LVIAL	AlwI	10105208	Pass
B6004SVIAL	rCutSmart™ Buffer	10108412	Pass

Assay Name/Specification	Lot # 10105209
<b>Protein Purity Assay (SDS-PAGE)</b> AlwI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 2-fold over-digestion of Lambda dam- DNA with AlwI, ~50% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with AlwI.	Pass
<b>Non-Specific DNase Activity (16 hour)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda dam- DNA and a minimum of 10 Units of 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.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b>	Pass

Assay Name/Specification	Lot # 10105209
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 10 units of AlwI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	

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

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17 Jun 2021



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17 Jun 2021