

New England Biolabs Certificate of Analysis

Product Name: AlwI
Catalog Number: R0513S
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: 10226107
Expiration Date: 10/2025
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

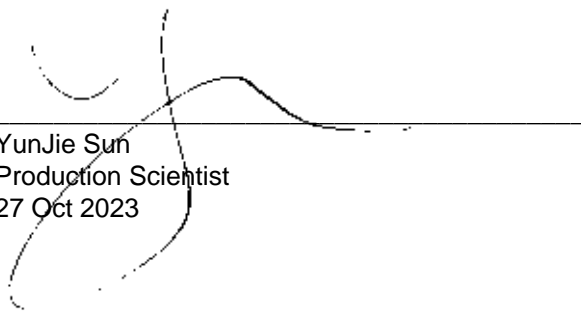
AlwI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0513SVIAL	AlwI	10214591	Pass
B6004SVIAL	rCutSmart™ Buffer	10224840	Pass

Assay Name/Specification	Lot # 10226107
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ 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.	Pass
Ligation and Recutting (Terminal Integrity) 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
Non-Specific DNase Activity (16 hour) 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

Assay Name/Specification	Lot # 10226107
Protein Purity Assay (SDS-PAGE) AlwI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	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 for additional information.



YunJie Sun
Production Scientist
27 Oct 2023



Talia Monkiewicz
Packaging Quality Control Inspector
16 Feb 2024