

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.
Lot Number: 10027291
Expiration Date: 11/2020
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	10027292	Pass
B7204SVIAL	CutSmart® Buffer	10021119	Pass

Assay Name/Specification	Lot # 10027291
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
Protein Purity Assay (SDS-PAGE) AlwI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Exonuclease Activity (Radioactivity Release)	Pass

Assay Name/Specification	Lot # 10027291
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.	

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



Tony Spear-Alfonso
Production Scientist
16 Oct 2018



Michael Tonello
Packaging Quality Control Inspector
19 Nov 2018