

New England Biolabs Certificate of Analysis

Product Name: AleI-v2
Catalog Number: R0685S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10032571
Expiration Date: 12/2019
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 200 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 200 µg/ml BSA, 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-R0685S/L v1.0

AleI-v2 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0685SVIAL	AleI-v2	10030266	Pass
B7204SVIAL	CutSmart® Buffer	10021126	Pass

Assay Name/Specification	Lot # 10032571
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled pBR322 DNA and a minimum of 30 units of AleI-v2 incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
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 100 units of AleI-v2 incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with AleI-v2, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with AleI-v2.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 50 units of AleI-v2 incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

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



Stephanie Cornelio
Production Scientist
05 Dec 2018



Mary Conlon
Packaging Quality Control Inspector
14 Dec 2018