

New England Biolabs Certificate of Analysis

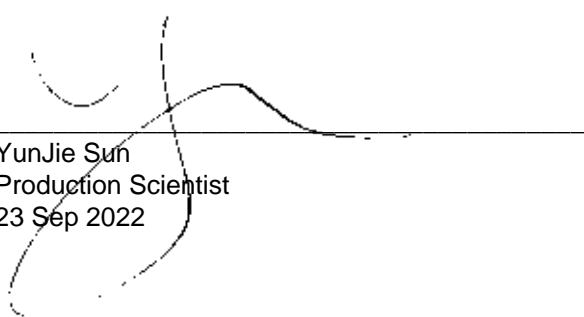
Product Name: AleI-v2
Catalog Number: R0685L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10165089
Expiration Date: 09/2023
Storage Temperature: -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 |
| R0685LVIAL | AleI-v2 | 10165088 | Pass |
| B6004SVIAL | rCutSmart™ Buffer | 10164465 | Pass |

| Assay Name/Specification | Lot # 10165089 |
|--|----------------|
| <p>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.</p> | Pass |
| <p>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.</p> | Pass |
| <p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] 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.</p> | Pass |
| <p>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.</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 for additional information.


YunJie Sun
Production Scientist
23 Sep 2022


Michael Tonello

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Packaging Quality Control Inspector
31 Oct 2022