

New England Biolabs Certificate of Analysis

Product Name: AfIII
Catalog Number: R0541S
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: 10050551
Expiration Date: 06/2021
Storage Temperature: -20°C
Storage Conditions: 500 mM NaCl , 10 mM Tris-HCl (7.4), 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol , 200 µg/ml BSA
Specification Version: PS-R0541S/L v1.0

| AfIII Component List | | | |
|----------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0541SVIAL | AfIII | 10048627 | Pass |
| B7203SVIAL | NEBuffer™ 3.1 | 10041002 | Pass |

| Assay Name/Specification | Lot # 10050551 |
|---|----------------|
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 50 units of AfIII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 5-fold over-digestion of Lambda DNA with AfIII, >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 AfIII. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 30 Units of AfIII 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

Stephanie Cornelio
Production Scientist
02 Jul 2019

Jay Minichiello

Jay Minichiello
Packaging Quality Control Inspector
14 Aug 2019