

New England Biolabs Certificate of Analysis

Product Name: Apol-HF®
Catalog Number: R3566L
Concentration: 20,000 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 degrees C in a total reaction volume of 50 µL
Lot Number: 10010502
Expiration Date: 08/2020
Storage Temperature: -20°C
Storage Conditions: 200 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)
Specification Version: PS-R3566S/L v1.0

| Apol-HF® Component List | | | |
|-------------------------|------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R3566LVIAL | Apol-HF® | 10010503 | Pass |
| B7204SVIAL | CutSmart® Buffer | 10013537 | Pass |
| B7024SVIAL | Gel Loading Dye, Purple (6X) | 0261805 | Pass |

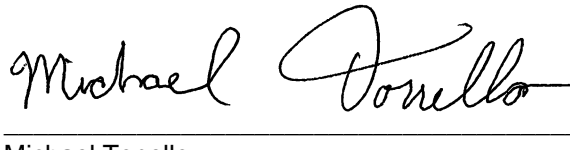
| Assay Name/Specification | Lot # 10010502 |
|---|----------------|
| Blue-White Screening (Terminal Integrity) A sample of pUC19 vector linearized with a 10-fold excess of Apol-HF, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies. | 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 Apol-HF incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Functional Testing (15 minute Digest) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and 1 µl of Apol-HF incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with Apol-HF, >95% of the DNA fragments | Pass |

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|--|----------------|
| <p>can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with Apol-HF.</p> | |
| <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 100 units of Apol-HF 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>Protein Purity Assay (SDS-PAGE) Apol-HF is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> | Pass |

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



Tony Spear-Alfonso
Production Scientist
10 Jul 2018



Michael Tonello
Packaging Quality Control Inspector
02 Aug 2018