

New England Biolabs Certificate of Analysis

Product Name: *ApaLI*
Catalog Number: *R0507M*
Concentration: *50,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (Hind III digest) in 1 hour at 37°C in a total reaction volume of 50 µl.*
Lot Number: *10008598*
Expiration Date: *04/2020*
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-R0507T/M v1.0*

| ApaLI Component List | | | |
|----------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0507MVIAL | ApaLI | 0401804 | Pass |
| B7204SVIAL | CutSmart® Buffer | 3051803 | Pass |

| Assay Name/Specification | Lot # 10008598 |
|---|----------------|
| <p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled M13mp19 DNA and a minimum of 50 Units of ApaLI incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</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 ApaLI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p> | Pass |
| <p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with ApaLI, >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 ApaLI.</p> | Pass |
| <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 100 Units of ApaLI incubated for 16 hours at 37°C results in a DNA</p> | Pass |

| Assay Name/Specification | Lot # 10008598 |
|---|----------------|
| pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | |

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



Penghua Zhang
Production Scientist
29 May 2018



Josh Hersey
Packaging Quality Control Inspector
29 May 2018