

## New England Biolabs Certificate of Analysis

**Product Name:** *ApaLI*  
**Catalog Number:** *R0507S*  
**Concentration:** *10,000 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.*  
**Packaging Lot Number:** *10147393*  
**Expiration Date:** *04/2024*  
**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-R0507S/L v1.0*

ApaLI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0507SVIAL	ApaLI	10147395	Pass
B6004SVIAL	rCutSmart™ Buffer	10143289	Pass

Assay Name/Specification	Lot # 10147393
<p><b>Endonuclease Activity (Nicking)</b>            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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 100 units of ApaLI incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Non-Specific DNase Activity (16 Hour)</b>            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 pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 10-fold over-digestion of Lambda-HindIII DNA with ApaLI, &gt;95% of the DNA</p>	Pass

Assay Name/Specification	Lot # 10147393
fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with ApaLI.	

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](http://www.neb.com/trademarks) for additional information.



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15 Apr 2022



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