

New England Biolabs Certificate of Analysis

Product Name: *Apal*
Catalog Number: *R0114L*
Concentration: *50,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 25°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10125567*
Expiration Date: *10/2023*
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, 500 µg/ml BSA*
Specification Version: *PS-R0114S/L v1.0*

Apal Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0114LVIAL	Apal	10125568	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10126634	Pass
B6004SVIAL	rCutSmart™ Buffer	10127377	Pass

Assay Name/Specification	Lot # 10125567
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 Units of Apal incubated for 4 hours at 25°C results in <20% 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 Apal incubated for 4 hours at 25°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pXba DNA with Apal, >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 Apal.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXba DNA and a minimum of 100 Units of Apal incubated for 16 hours at 25°C results in a DNA pattern free of</p>	Pass

Assay Name/Specification	Lot # 10125567
detectable nuclease degradation as determined by agarose gel electrophoresis.	

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.



Penghua Zhang
Production Scientist
15 Dec 2021



Michael Tonello
Packaging Quality Control Inspector
15 Dec 2021