

## New England Biolabs Certificate of Analysis

**Product Name:** APE 1  
**Catalog Number:** M0282S  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to cleave 20 pmol of a 34 mer oligonucleotide duplex containing a single AP site in a total reaction volume of 10 µl in 1 hour at 37°C.  
**Packaging Lot Number:** 10225776  
**Expiration Date:** 03/2026  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl, 50 mM NaCl, 1 mM DTT, 0.05 mM EDTA, 200 µg/ml BSA, 50% Glycerol, (pH 8.0 @ 25°C)  
**Specification Version:** PS-M0282S/L v1.0

APE 1 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0282SVIAL	APE 1	10225777	Pass
B7004SVIAL	NEBuffer™ 4	10184703	Pass

Assay Name/Specification	Lot # 10225776
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of APE 1 incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 4 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of APE 1 incubated for 4 hours at 37°C releases <0.5% of the total radioactivity.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in NEBuffer 4 containing 1 µg of Lambda-HindIII DNA and a minimum of 50 units of APE 1 incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b> APE 1 is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass

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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Nancy Considine  
Production Scientist  
12 May 2023



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Michael Tonello  
Packaging Quality Control Inspector  
26 Jan 2024