

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: 10230682
Expiration Date: 07/2026
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	10225682	Pass

Assay Name/Specification	Lot # 10230682
Endonuclease Activity (Nicking) 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
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 4 containing 1 µg of a mixture of single and double-stranded [³ 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
Non-Specific DNase Activity (16 Hour) 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
Protein Purity Assay (SDS-PAGE) 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.

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24 Jan 2024



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11 Mar 2024