

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.
Lot Number: 10041655
Expiration Date: 10/2021
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	10041656	Pass
B7004SVIAL	NEBuffer™ 4	10043904	Pass

Assay Name/Specification	Lot # 10041655
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.

Lauren Higgins

Lauren Sears Higgins
Production Scientist
17 Apr 2019

Michael Tonello

Michael Tonello
Packaging Quality Control Inspector
11 Jul 2019