NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
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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:	*10185193*
Expiration Date:	*08/2025*
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	10183386	**Pass**
B7004SVIAL	NEBuffer™ 4	10161527	**Pass**

Assay Name/Specification	Lot # 10185193
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 37ºC 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**

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This product has been tested and shown to be in compliance with all specifications.

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Nancy Considine
Production Scientist
26 Aug 2022

Josh Hersey
Packaging Quality Control Inspector
29 Mar 2023