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antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-APE1 APEX1 Antibody Picoband™ (monoclonal, 5C11)

**Catalog Number:** M00627

## About APEX1

APEX1, also called apurinic endonuclease (APE), is a DNA repair enzyme having apurinic/apyrimidinic (AP) endonuclease, 3-prime, 5-prime-exonuclease, DNA 3-prime repair diesterase, and DNA 3-prime-phosphatase activities. The human APEX1 gene consists of 5 exons spanning 2.64 kb and exists as a single copy in the haploid genome. Using in situ hybridization, the APEX1 gene is mapped to 14q11.2-q12. The predicted APEX1 protein, which contained probable nuclear transport signals, was identified as a member of a family of DNA repair enzymes found in lower organisms. The abundance of the large form of APEX1 was increased in leiomyoma extracts relative to myometrial tissue extracts, and the large form was dominant in cell lines derived from leiomyosarcomas. The exonuclease activity of nuclear APEX1 can remove the anti-HIV nucleoside analogs AZT and D4T from the 3-prime terminus of a nick more efficiently than can cytosolic exonucleases.

## Overview

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| Product Name | Anti-APE1 APEX1 Antibody Picoband™ (monoclonal, 5C11) |
| Reactive Species | Human |
| Description | Boster Bio Anti-APE1 APEX1 Antibody Picoband™ (monoclonal, 5C11) catalog # M00627. Tested in Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human. |
| Application | Flow Cytometry, IHC, ICC, WB |
| Clonality | Monoclonal 5C11 |
| Formulation | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. |
| Storage Instructions | Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Mouse |
| Uniprot ID | P27695 |

## Technical Details

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| Immunogen | E.coli-derived human APE1 recombinant protein (Position: P2-L318). Human APE1 shares 94% and 93% amino acid (aa) sequence identity with mouse and rat APE1, respectively. |
| Predicted Reactive Species | Hepatitis Virus |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P), IHC(F) and ICC. |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Mouse IgG2b |

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| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.<br>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.<br>Some PubMed article(s) citing the expression level of this target are as follows:<br>Boster Bio's internal QC testing used:<br>Western blot, 0.1-0.5ug/ml<br>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml<br>Immunohistochemistry (Frozen Section), 0.5-1ug/ml<br>Immunocytochemistry, 0.5-1ug/ml<br>Flow Cytometry, 1-3ug/1x$10^6$ cells |

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# Anti-APE1 APEX1 Antibody Picoband™ (monoclonal, 5C11) (M00627) Images

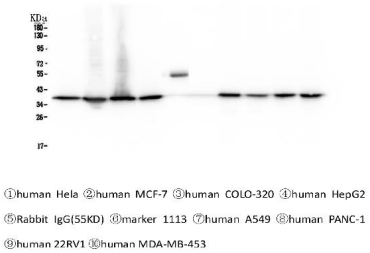


Figure 1. Western blot analysis of APE1 using anti-APE1 antibody (M00627).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human MCF-7 whole cell lysates,
Lane 3: human COLO-320 whole cell lysates,
Lane 4: human HepG2 whole cell lysates,
Lane 5: Rabbit IgG,
Lane 6: Marker 1113,
Lane 7: human A549 whole cell lysates ,
Lane 8: human PANC-1 whole cell lysates,
Lane 9: human 22RV1 whole cell lysates,
Lane 10: human MDA-MB-453 whole cell lysates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-APE1 antigen affinity purified monoclonal antibody (Catalog # M00627) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system.

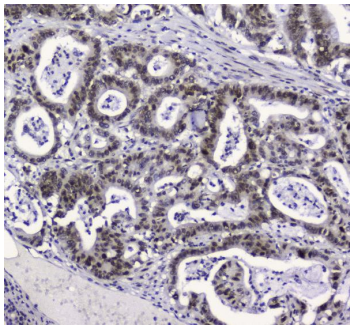

Figure 2. IHC analysis of APE1 using anti-APE1 antibody (M00627).
APE1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-APE1 Antibody (M00627) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen. "