

Mouse anti-Human APE1 Monoclonal Antibody | anti-APE1 antibody

Anti-APE1 Antibody (monoclonal, 5C11)

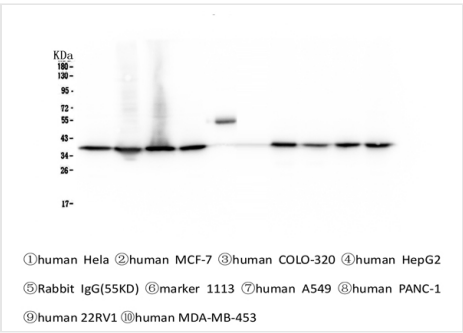
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125134	Mouse	Human	Flow Cytometry, Functional Assay, Immunocytochemistry, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

APE1; Monoclonal Antibody; Anti-APE1 Antibody (monoclonal; 5C11); DNA- (apurinic or apyrimidinic site) lyase; APEX nuclease; APEN; Apurinic-apyrimidinic endonuclease 1; AP endonuclease 1; APE-1; REF-1; Redox factor-1; mitochondrial; APEX1; APE; APEX; APX; HAP1; REF1; APEX nuclease (multifunctional DNA repair enzyme) 1; anti-APE1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	5C11
Specificity	No cross reactivity with other proteins.
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized
Sequence Length	318
Applicable Applications for anti-APE1 antibody	FCM/FACS (Flow Cytometry), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
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.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



WB (Western Blot)

Figure 1. Western blot analysis of APE1 using anti-APE1 antibody (AAA125134). 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 at 0.5 ug/ml overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a Biotin Conjugated goat anti-mouse IgG 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 with Tanon 5200 system.

ADDITIONAL INFORMATION

Related Product Information for anti-APE1 antibody	Description: Mouse IgG monoclonal antibody for APE1 detection. Tested with WB, IHC-P, IHC-F, ICC, FCM in Human. Background: APEX1, also called apurinic endonuclease (APE), is a DNA repair enzyme having apurinic/aprimidinic (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.
References	1. Akiyama, K., Seki, S., Oshida, T., Yoshida, M. C. Structure, promoter analysis and chromosomal assignment of the human APEX gene. <i>Biochim. Biophys. Acta</i> 1219: 15-25, 1994. 2. Chou, K.-M., Cheng, Y.-C. An exonucleolytic activity of human apurinic/aprimidinic endonuclease on 3-prime mispaired DNA. <i>Nature</i> 415: 655-659, 2002. 3. Robson, C. N., Hochhauser, D., Craig, R., Rack, K., Buckle, V. J., Hickson, I. D. Structure of the human DNA repair gene HAP1 and its localisation to chromosome 14q11.2-12. <i>Nucleic Acids Res.</i> 20: 4417-4421, 1992.

NCBI AND UNIPROT INFORMATION

NCBI GI #	346644849
NCBI GeneID	328
NCBI Accession #	NP_001231178.1
NCBI GenBank Nucleotide #	NM_001244249.1
UniProt Accession #	P27695; Q969L5; Q99775
NCBI Official Full Name	DNA-(apurinic or apyrimidinic site) lyase
NCBI Official Synonym Full Names	apurinic/apyrimidinic endodeoxyribonuclease 1

NCBI Official Symbol	APEX1
NCBI Official Synonym Symbols	APE; APX; APE1; APEN; APEX; HAP1; REF1
NCBI Protein Information	DNA-(apurinic or apyrimidinic site) lyase
UniProt Protein Name	DNA-(apurinic or apyrimidinic site) lyase
UniProt Gene Name	APEX1
UniProt Synonym Gene Names	APE; APE1; APEX; APX; HAP1; REF1; APEN; AP endonuclease 1; APE-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/ape1-antibody-clone-5c11-flow-cytometry-immunocytochemistry-immunohistochemistry-western-blot-elisa/125134>