Product datasheet

Anti-APEX1 Antibody (Clone#5C11)

Catalog Number: *M00627*

BOSTER
antibody and ELISA experts
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Basic Information

Product Name	Anti-APEX1 Antibody (Clone#5C11)
Gene Name	APEX1
Source	Mouse
Isotype	IgG2b
Species Reactivity	human
Tested Application	WB, IHC, IHC-F, ICC, FCM
Contents	500 ug/ml antibody with PBS， 0.02% NaN3 , 1 mg BSA and 50% glycerol.
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.
concentration	500 ug/ml
Purification	protein G purified.
Observed MW	39KD
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunohistochemistry in frozen section: 1:50-400 Immunocytochemistry in fixed cells: 1:50-400 Flow cytometry (FCM): 1-3 μg/1x10^6 cells (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

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.

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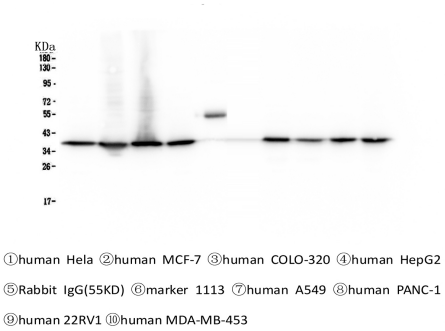
Selected Validation Data



①human Hela ②human MCF-7 ③human COLO-320 ④human HepG2 ⑤Rabbit IgG(55KD) ⑥marker 1113 ⑦human A549 ⑧human PANC-1 ⑨human 22RV1 ⑩human MDA-MB-453

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: mouse 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 µg/mL overnight at 4°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 (Catalog # EK1001) with Tanon 5200 system.

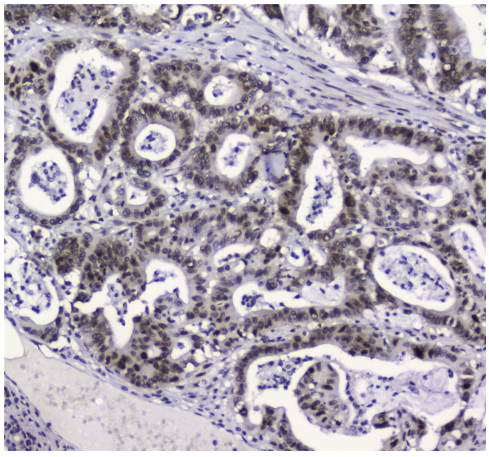


Figure 2. IHC analysis of APE1 using anti-APE1 antibody (M00627).APE1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/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.