Datasheet for ABIN5692978

anti-APEX1 antibody (AA 2-318)

2 Images

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Overview

Quantity:	100 µg
Target:	APEX1
Binding Specificity:	AA 2-318
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This APEX1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Brand:	Picoband™
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.
Clone:	5C11
Isotype:	IgG2b
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Mouse IgG monoclonal antibody for APE1 detection. Tested with WB, IHC-P, IHC-F, ICC, FCM in Human.

Target Details

Target:	APEX1
Alternative Name:	APEX1 (APEX1 Products)
Background:	Synonyms: DNA-(apurinic or apyrimidinic site) lyase, APEX nuclease, APEN, Apurinic-apyrimidinic endonuclease 1, AP endonuclease 1, APE-1, REF-1, Redox factor-1, DNA-(apurinic or apyrimidinic site) lyase, mitochondrial, APEX1, APE, APE1, APEX, APX, HAP1, REF1 Background: 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.
UniProt:	P27695
Pathways:	DNA Damage Repair, Chromatin Binding, Cell RedoxHomeostasis, Smooth Muscle Cell Migration, Positive Regulation of Response to DNA Damage Stimulus

Application Details

Application Notes:	Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC. Application Details: Western blot, 0.1-0.5 µg/mL Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL Immunohistochemistry(Frozen Section), 0.5-1 µg/mL Immunocytochemistry, 0.5-1 µg/mL Flow Cytometry, 1-3 µg/1x10^6 cells
Restrictions:	For Research Use only

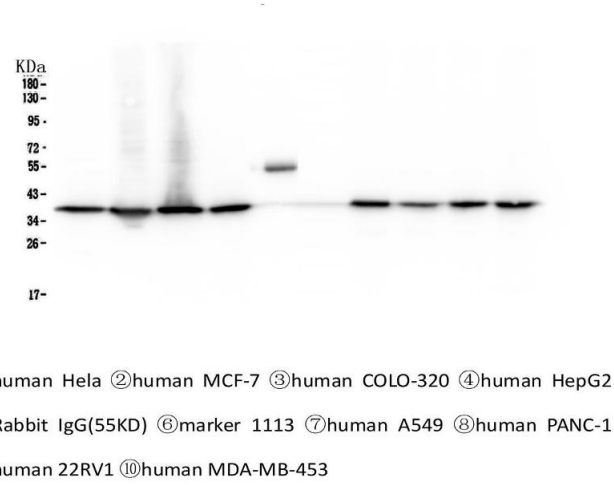
Handling

Format:	Lyophilized

Handling

Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Images

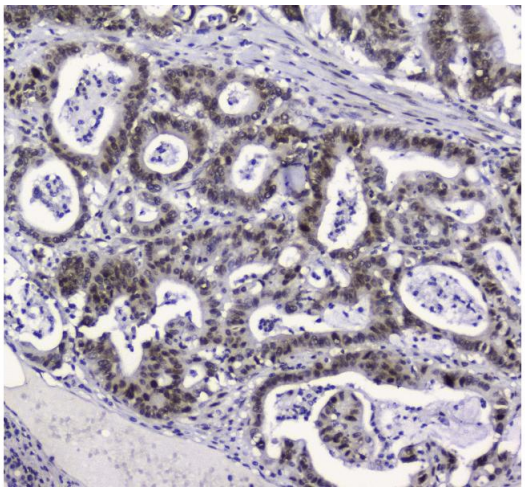


①human Hela ②human MCF-7 ③human COLO-320 ④human HepG2 ⑤Rabbit IgG(55KD) ⑥marker 1113 ⑦human A549 ⑧human PANC-1 ⑨human 22RV1 ⑩human MDA-MB-453

Western Blotting

Image 1. Western blot analysis of APE1 using anti-APE1 antibody . 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 #) 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.



Immunohistochemistry

Image 2. IHC analysis of APE1 using anti-APE1 antibody . 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 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.

