

Datasheet for ABIN3044417
anti-APEX1 antibody (Middle Region)



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3 Images

Overview

Quantity:	100 µg
Target:	APEX1
Binding Specificity:	AA 177-191, Middle Region
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This APEX1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Purpose:	Anti-APE1/APEX1 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human APE1, identical to the related rat and mouse sequences.
Sequence:	RGLVRLEYRQ RWDEA
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-APE1/APEX1 Antibody (ABIN3044417). Tested in IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated

Product Details

as Picoband, ensuring unmatched performance.

Purification: Immunogen affinity purified.

Target Details

Target: APEX1

Alternative Name: APEX1 ([APEX1 Products](#))

Background: Synonyms: DNA- (apurinic or apyrimidinic site) lyase,3.1.-.,4.2.99.18,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,
Tissue Specificity: Released primarily from activated T lymphocytes.
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.
Sequence Similarities: Belongs to the DNA repair enzymes AP/ExoA family.

Molecular Weight: 36 kDa

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: Western blot, 0.1-0.5 µg/mL, Human, Mouse, Rat
Immunohistochemistry (Paraffin-embedded Section), 2-5 µg/mL, Human, Mouse, Rat
Immunocytochemistry/Immunofluorescence, 5 µg/mL, Human, Rat
Immunofluorescence, 5 µg/mL, Human

Application Details

1. Akiyama, K., Seki, S., Oshida, T., Yoshida, M. C. Structure, promoter analysis and chromosomal assignment of the human APEX gene. Biochim. Biophys. Acta 1219: 15-25, 1994. 2. Chou, K.-M., Cheng, Y.-C. An exonucleolytic activity of human apurinic/aprimidinic endonuclease on 3-prime mispaired DNA. Nature 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. Nucleic Acids Res. 20: 4417-4421, 1992.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Thimerosal, 0.05 mg Sodium azide.

Preservative: Thimerosal (Merthiolate), Sodium azide

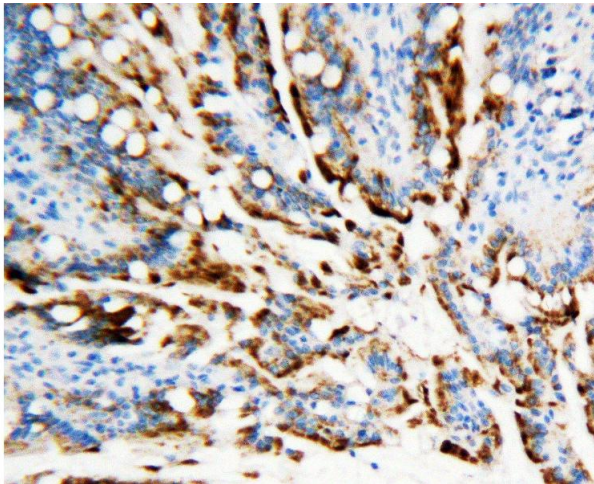
Precaution of Use: This product contains Thimerosal (Merthiolate) and Sodium azide: POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C, -20 °C

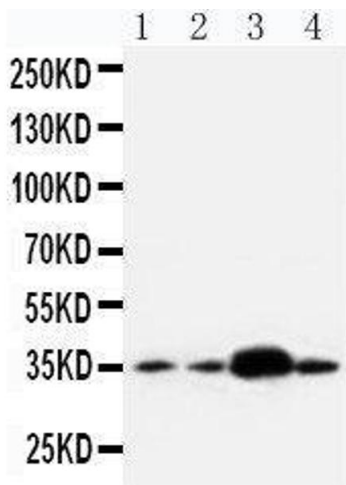
Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Expiry Date: 12 months



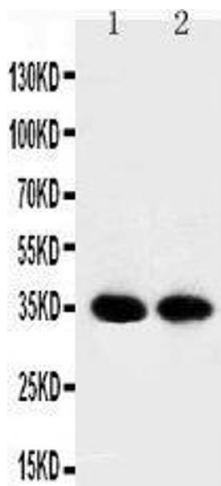
Immunohistochemistry

Image 1. Anti-APE1 antibody, IHC(P) IHC(P): Rat Intestine Tissue



Western Blotting

Image 2. Anti-APE1 antibody, Western blotting Lane 1: U87 Cell Lysate Lane 2: A549 Cell Lysate Lane 3: SMMC Cell Lysate Lane 4: HELA Cell Lysate



Western Blotting

Image 3. Anti-APE1 antibody, Western blotting Lane 1: Rat Brain Tissue Lysate Lane 2: Mouse Brain Tissue Lysate