

Basic Information

Product Name	Anti-APEX1 Antibody	
Gene Name	APEX1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, IF, ICC/IF	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human APE1, identical to the related rat and mouse sequences.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	36 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 (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.	

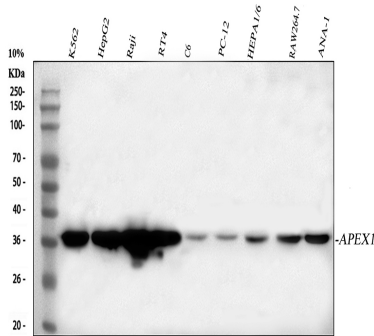
Storage

12 months from date of receipt, -20°C as supplied.

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.

Selected Validation Data



Western blot analysis of anti-APEX1 antibody (BA2105). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human K562 whole cell lysates,

Lane 2: human HepG2 whole cell lysates,

Lane 3: human Raji whole cell lysates,

Lane 4: human RT4 whole cell lysates,

Lane 5: rat C6 whole cell lysates,

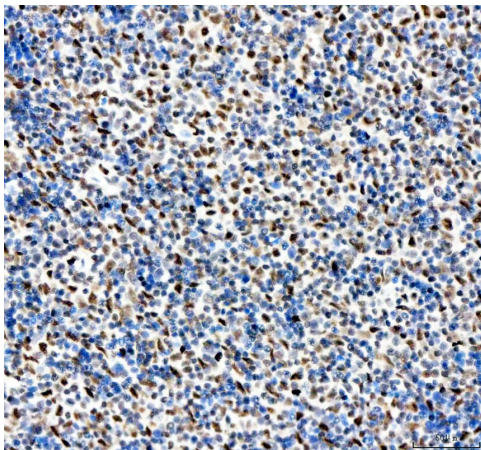
Lane 6: rat PC-12 whole cell lysates,

Lane 7: mouse Hepa1-6 whole cell lysates,

Lane 8: mouse RAW264.7 whole cell lysates,

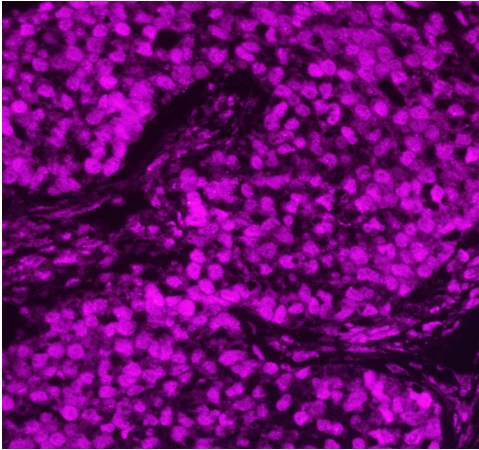
Lane 9: mouse ANA-1 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-APEX1 antigen affinity purified polyclonal antibody (BA2105) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for APEX1 at approximately 36 kDa. The expected band size for APEX1 is at 36 kDa.



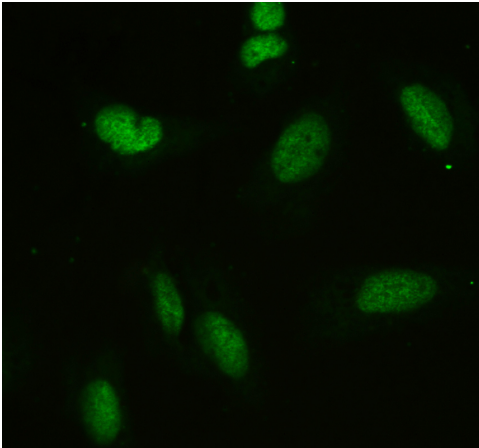
IHC analysis of APEX1 using anti-APEX1 antibody (BA2105).

APEX1 was detected in a paraffin-embedded section of human spleen tissue. The tissue section was incubated with rabbit anti-APEX1 Antibody (BA2105) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of APEX1 using anti-APEX1 antibody (BA2105).

APEX1 was detected in a paraffin-embedded section of human lung cancer tissue. The tissue section was incubated with rabbit anti-APEX1 Antibody (BA2105) at a dilution of 1:100. DyLight 647 Conjugated AffiniPure Goat Anti-rabbit IgG (H+L) secondary antibody (Catalog # BA1150) was used as secondary antibody.



IF analysis of APEX1 using anti-APEX1 antibody (BA2105).

APEX1 was detected in an immunocytochemical section of U2OS cells. The section was incubated with rabbit anti-APEX1 Antibody (BA2105) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody.