

For Research Use Only

APEX1 Polyclonal antibody

Catalog Number: 10203-1-AP

Featured Product

21 Publications



Basic Information

Catalog Number: 10203-1-AP	GenBank Accession Number: BC002338	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 800 µg/ml by Nanodrop and 533 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 328	Recommended Dilutions: WB 1:500-1:2000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
Source: Rabbit	Full Name: APEX nuclease (multifunctional DNA repair enzyme) 1	IHC 1:20-1:200 IF 1:50-1:500
Isotype: IgG	Calculated MW: 36 kDa	
Immunogen Catalog Number: AG0251	Observed MW: 36 kDa	

Applications

Tested Applications: IF, IHC, IP, WB, ELISA	Positive Controls: WB : HeLa cells, mouse brain tissue IP : HeLa cells, IHC : human breast cancer tissue, IF : MCF-7 cells,
Cited Applications: CoIP, IF, IHC, WB	
Species Specificity: human, mouse, rat	
Cited Species: human, rat, mouse	
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	

Background Information

APEX1, also named as APE, APE1, HAP1 and REF-1, belongs to the DNA repair enzymes AP/ExoA family. It is a multifunctional protein that plays a central role in the cellular response to oxidative stress. The two major activities of APEX1 are in DNA repair and redox regulation of transcriptional factors. APEX nuclease 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. On the other hand, APEX1 also exerts reversible nuclear redox activity to regulate DNA binding affinity and transcriptional activity of transcriptional factors by controlling the redox status of their DNA-binding domain, such as the FOS/JUN AP-1 complex after exposure to IR. APEX1 is involved in calcium-dependent down-regulation of parathyroid hormone (PTH) expression by binding to negative calcium response elements (nCaREs). When acetylated at Lys-6 and Lys-7, APEX1 stimulates the YBX1-mediated MDR1 promoter activity, leading to drug resistance. It also acts as an endoribonuclease involved in the control of single-stranded RNA metabolism. It plays a role in regulating MYC mRNA turnover by preferentially cleaving in between UA and CA dinucleotides of the MYC coding region determinant (CRD). In association with NMD1, APEX1 plays a role in the rRNA quality control process during cell cycle progression. 10203-1-AP is a rabbit polyclonal antibody raised against full length APE1 of human origin.

Notable Publications

Author	Pubmed ID	Journal	Application
Meng Chen	36096885	Cell Death Dis	WB
Wei Liang	31564904	Onco Targets Ther	WB
Jingjing Zhang	29066842	Sci Rep	IF

Storage

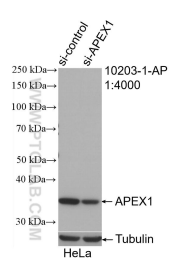
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

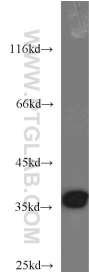
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

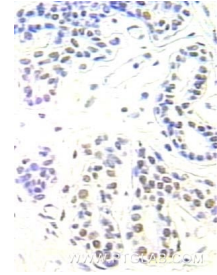
Selected Validation Data



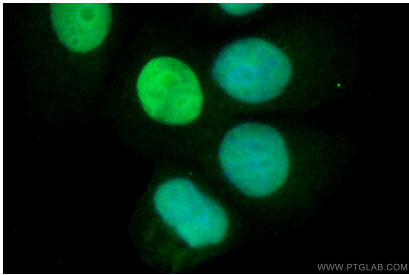
WB result of APEX1 antibody (10203-1-AP; 1:4000; incubated at room temperature for 1.5 hours) with sh-Control and sh-APEX1 transfected HeLa cells.



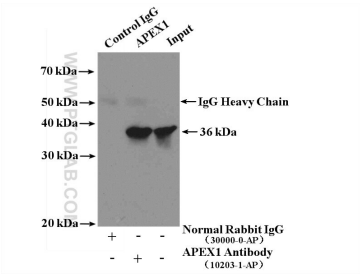
HeLa cells were subjected to SDS PAGE followed by western blot with 10203-1-AP (APEX1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human breast cancer using 10203-1-AP (APEX1 antibody) at dilution of 1:100 (under 25x lens).



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using APEX1 antibody (10203-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP Result of anti-APEX1 (IP:10203-1-AP, 4ug; Detection:10203-1-AP 1:1000) with HeLa cells lysate 1600ug.