

Basic Information

Product Name	Anti-APEX2 Antibody	
Gene Name	APEX2	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived human APEX2 recombinant protein (Position: L102-A210). Human APEX2 shares 91.7% amino acid (aa) sequence identity with mouse APEX2.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	57 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Flow Cytometry (Fixed):	1:50-200
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000

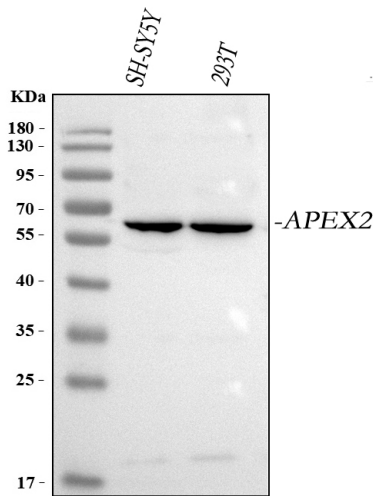
Storage

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

Background Information

APEX2, also called apurinic/apyrimidinic endonuclease like-2, is a member of the apurinic/apyrimidinic (AP) family of endonucleases that initiate the repair of AP sites formed by spontaneous hydrolysis of the N-glycosylic bond, mutagen-induced base release, or damaged-base excision by a DNA repair glycosylase. RT-PCR detected APEX2 expression in HeLa cells, Jurkat cells, and human kidney, brain and fetal brain tissue. The APEX2 gene is mapped to chromosome Xp11.21. APEX2 participates in both nuclear and mitochondrial base excision repair (BER) and it can play a role in processing 3-prime-damaged termini or 3-prime-mismatched nucleotides. Additionally, APEX2 displayed weaker AP site-specific and 3-prime nuclease activities compared to APEX1.

Selected Validation Data



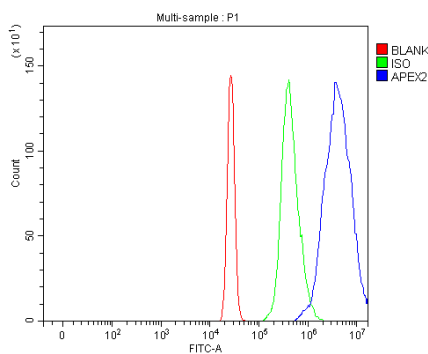
Western blot analysis of APEX2 using anti-APEX2 antibody (A07203-1).

The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human SH-SY5Y whole cell lysates,

Lane 2: human 293T whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-APEX2 antigen affinity purified polyclonal antibody (A07203-1) at a dilution of 1:1000 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 APEX2 at approximately 57 kDa. The expected band size for APEX2 is at 57 kDa.



Flow Cytometry analysis of HL-60 cells using anti-APEX2 antibody (A07203-1).

Overlay histogram showing HL-60 cells stained with A07203-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-APEX2 Antibody (A07203-1, 1:100). DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 1:100) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (Catalog # BA1045) (1:100) used under the same conditions. Unlabelled sample (Red line) was also used as a control.