



## Rabbit Anti-APEX2 antibody

SL6587R

<b>Product Name:</b>	APEX2
<b>Chinese Name:</b>	嘌呤嘧啶核酸内切酶2抗体
<b>Alias:</b>	AP endonuclease 2; AP endonuclease XTH2; APE 2; APE2; APEX 2; APEX L2; APEX nuclease (apurinic/aprimidinic endonuclease) 2; APEX Nuclease 2; APEX nuclease like 2; APEXL 2; APEXL2; Apurinic apyrimidinic endonuclease 2; Apurinic/apyrimidinic endonuclease 2; Apurinic/apyrimidinic endonuclease like 2; C430040P13Rik; DNA (apurinic or apyrimidinic site) lyase 2; XTH 2; XTH2; APEX2 HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Cow,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	57kDa
<b>Cellular localization:</b>	The nucleuscytoplasmic
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human APEX2:301-200/518
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	Apurinic/apyrimidinic (AP) sites occur frequently in DNA molecules by spontaneous hydrolysis, by DNA damaging agents or by DNA glycosylases that remove specific

abnormal bases. AP sites are pre-mutagenic lesions that can prevent normal DNA replication so the cell contains systems to identify and repair such sites. Class II AP endonucleases cleave the phosphodiester backbone 5' to the AP site. This gene encodes a protein shown to have a weak class II AP endonuclease activity. Most of the encoded protein is located in the nucleus but some is also present in mitochondria. This protein may play an important role in both nuclear and mitochondrial base excision repair (BER).

**Function:**

Function as a weak apurinic/aprimidinic (AP) endodeoxyribonuclease in the DNA base excision repair (BER) pathway of DNA lesions induced by oxidative and alkylating agents. Initiates repair of AP sites in DNA by catalyzing hydrolytic incision of the phosphodiester backbone immediately adjacent to the damage, generating a single-strand break with 5'-deoxyribose phosphate and 3'-hydroxyl ends. Displays also double-stranded DNA 3'-5' exonuclease, 3'-phosphodiesterase activities. Shows robust 3'-5' exonuclease activity on 3'-recessed heteroduplex DNA and is able to remove mismatched nucleotides preferentially. Shows fairly strong 3'-phosphodiesterase activity involved in the removal of 3'-damaged termini formed in DNA by oxidative agents. In the nucleus functions in the PCNA-dependent BER pathway. Required for somatic hypermutation (SHM) and DNA cleavage step of class switch recombination (CSR) of immunoglobulin genes. Required for proper cell cycle progression during proliferation of peripheral lymphocytes.

**Subunit:**

Interacts with PCNA; this interaction is triggered by reactive oxygen species and increased by misincorporation of uracil in nuclear DNA.

**Subcellular Location:**

Nucleus. Cytoplasm. Mitochondrion (Probable). Note=Together with PCNA, is redistributed in discrete nuclear foci in presence of oxidative DNA damaging agents.

**Tissue Specificity:**

Highly expressed in brain and kidney. Weakly expressed in the fetal brain.

**Similarity:**

Belongs to the DNA repair enzymes AP/ExoA family.

**SWISS:**

Q9UBZ4

**Gene ID:**

27301

**Database links:**

[Entrez Gene](#): Human

[Entrez Gene: 77622](#) Mouse

[Entrez Gene: 289662](#) Rat

[Omim: 300773](#) Human

[SwissProt: Q9UBZ4](#) Human

[SwissProt: Q68G58](#) Mouse

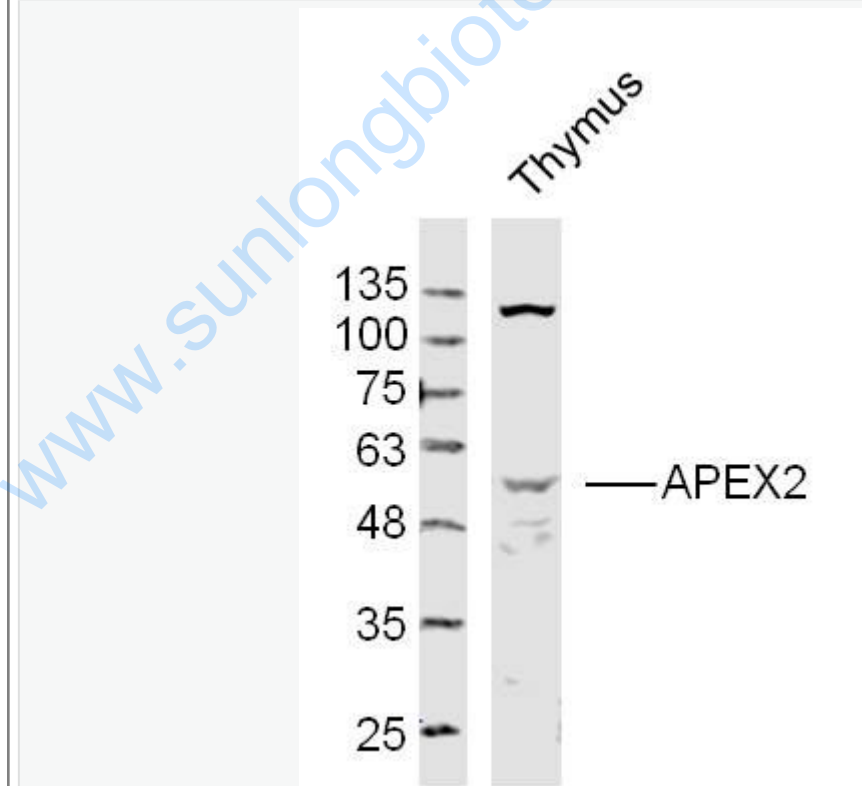
[Unigene: 659558](#) Human

[Unigene: 440275](#) Mouse

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

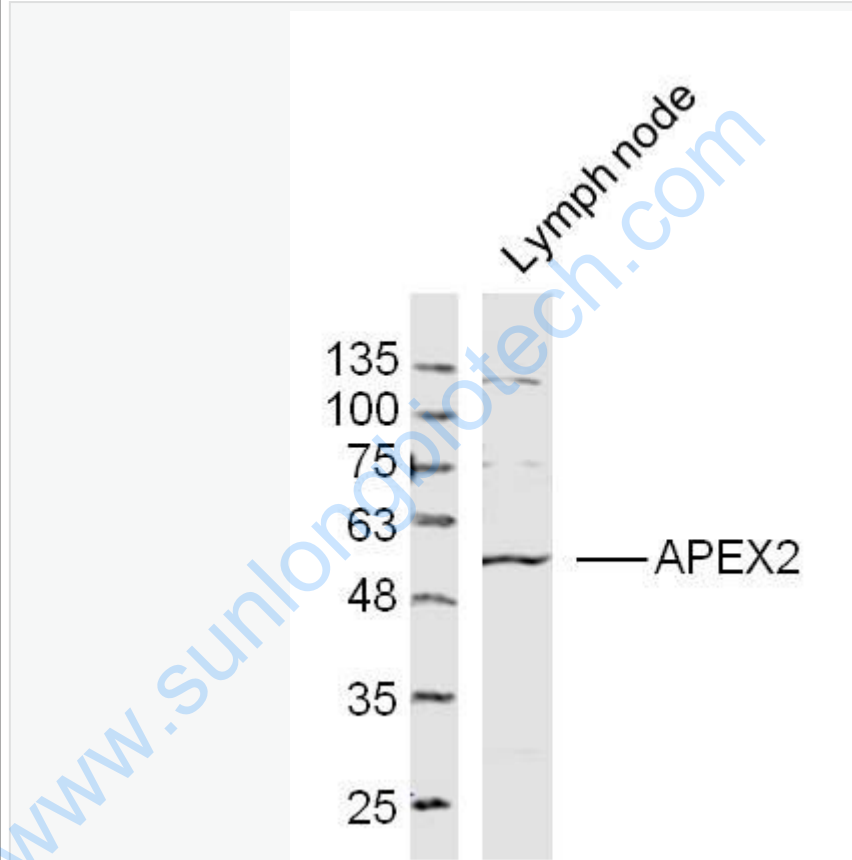
Thymus (Mouse) Lysate at 40 ug

Primary: Anti- APEX2 (SL6587R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 57kD

Observed band size: 57kD



Sample:

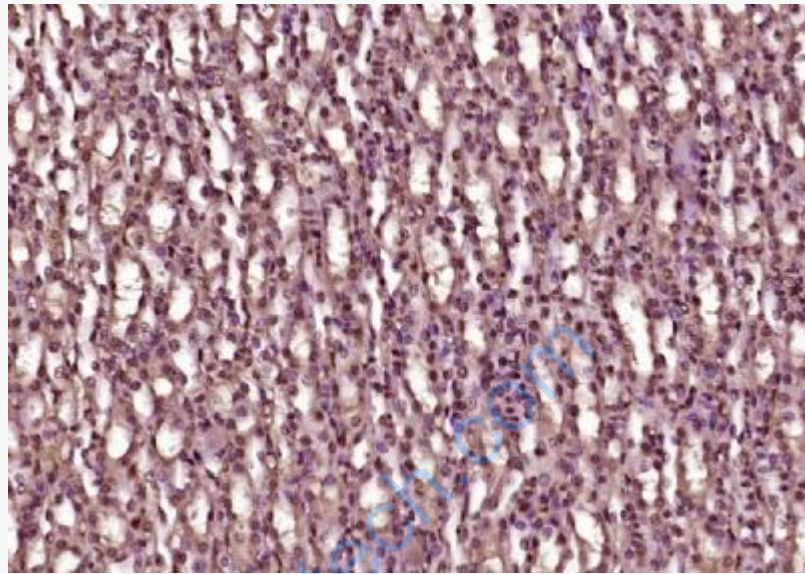
Lymph node(Mouse) Lysate at 40 ug

Primary: Anti- APEX2 (SL6587R)at 1/300 dilution

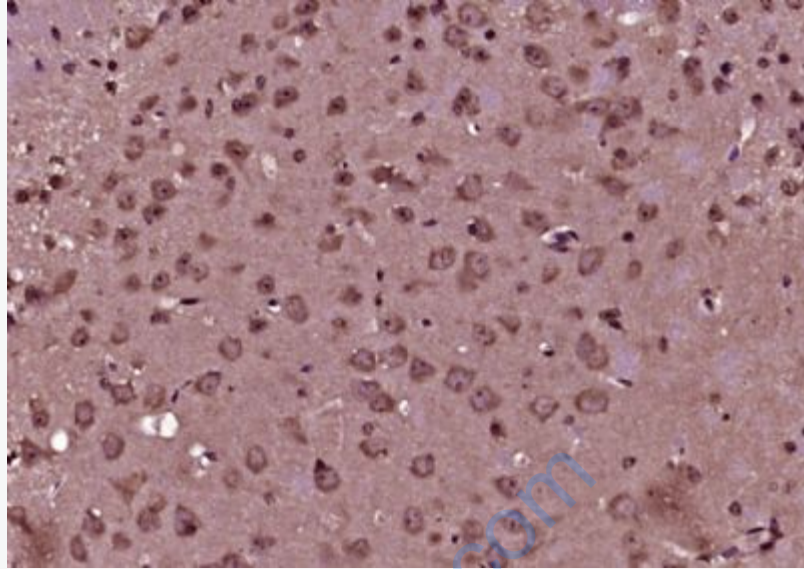
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 57kD

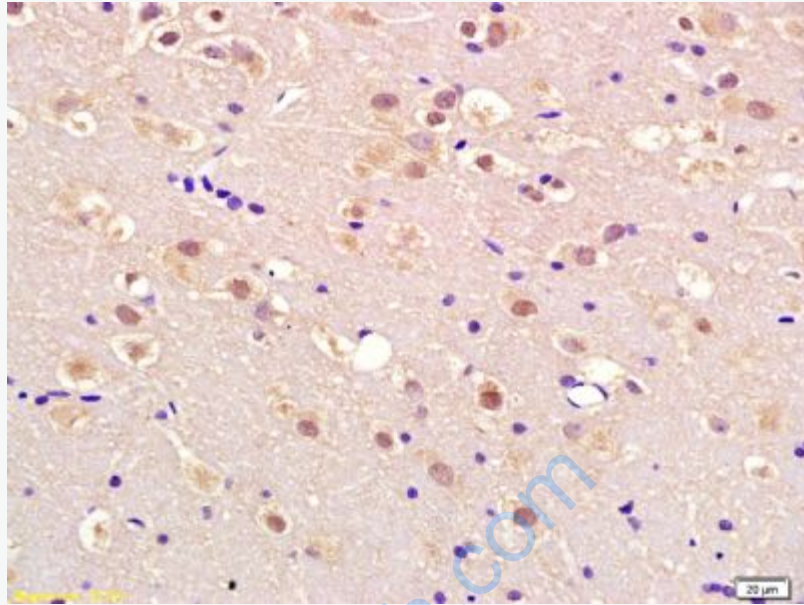
Observed band size: 57kD



Paraformaldehyde-fixed, paraffin embedded (Mouse kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (APEX2) Polyclonal Antibody, Unconjugated (SL6587R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (APEX2) Polyclonal Antibody, Unconjugated (SL6587R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
Incubation: Anti-APEX2 Polyclonal Antibody, Unconjugated(SL6587R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining