SunLong Biotech Co.,LTD
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Rabbit Anti-APEX1 antibody

SLM-60707R

Product Name	APEX1
Chinese Name	多功能 DNA 修复酶 Recombinant rabbit monoclonal anti
Alias	APEX1_HUMAN; DNA-(apurinic or apyrimidinic site) endonuclease; EC:3.1.11.2; APE; APE1; APEX; APX; HAP1; REF1; APEX nuclease (APEN); Apurinic-apyrimidinic endonuclease 1 (AP endonuclease 1; APE-1); REF-1; Redox factor-1; DNA-(apurinic or apyrimidinic site) endonuclease, mitochondrial;
Research Area	Cardiovascular Chromatin and nuclear signals transcriptional regulatory factor Epigenetics
Immunogen Species	Rabbit
Clonality	Monoclonal
Clone NO.	R2D12
React Species	Human,Mouse,Rat
Applications	WB=1:1000-5000,IHC-P=1:200-1000,IHC-F=1:200-1000,IF=1:200-1000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	36kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human APEX1
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

PubMed

PubMed

The APEX gene encodes the major AP endonuclease in human cells. It encodes the APEX endonuclease, a DNA repair enzyme with apurinic/apyrimidinic (AP) activity. Such AP activity sites occur frequently in DNA molecules by spontaneous hydrolysis, by DNA damaging agents or by DNA glycosylases that remove specific abnormal bases. The AP sites are the most frequent pre-mutagenic lesions that can prevent normal DNA replication. Splice variants have been found for this gene; all encode the same protein. Disruptions in the biological functions related to APEX are associated with many various malignancies and neurodegenerative diseases.[provided by RefSeq, Dec 2019]

Product Detail

Subcellular Location:
Nucleus. Nucleus, nucleolus. Nucleus speckle. Endoplasmic reticulum. Cytoplasm. Note=Detected in the cytoplasm of B-cells stimulated to switch. Colocalized with SIRT1 in the nucleus. Colocalized with YBX1 in nuclear speckles after genotoxic stress. Together with OGG1 is recruited to nuclear speckles in UVA-irradiated cells. Colocalized with nucleolin and NPM1 in the nucleolus. Its nucleolar localization is cell cycle dependent and requires active rRNA transcription. Colocalized with calreticulin in the endoplasmic reticulum. Translocation from the nucleus to the cytoplasm is stimulated in presence of nitric oxide (NO) and function in a CRM1-dependent manner, possibly as a consequence of demasking a nuclear export signal (amino acid position 64-80). S-nitrosylation at Cys-93 and Cys-310 regulates its nuclear-cytosolic shuttling. Ubiquitinated form is localized predominantly in the cytoplasm.
DNA-(apurinic or apyrimidinic site) lyase, mitochondrial: Mitochondrion. Note=The cleaved APEX2 is only detected in mitochondria. Translocation from the cytoplasm to the mitochondria is mediated by ROS signaling and cleavage mediated by granzyme A. Tom20-dependent translocated mitochondrial APEX1 level is significantly increased after genotoxic stress.

SWISS:
P27695

Gene ID:
328

Database links:

Entrez Gene: 328 Human

Entrez Gene: 11792 Mouse

Entrez Gene: 79116 Rat

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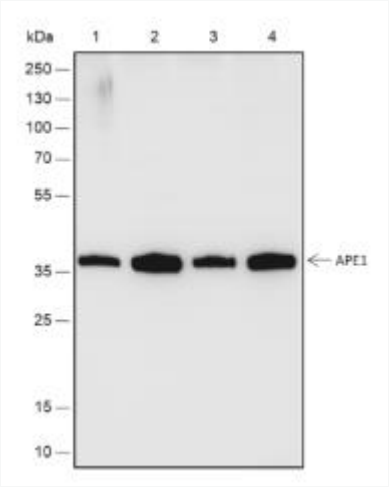
SwissProt: P27695 Human

SwissProt: P28352 Mouse

SwissProt: P43138 Rat

Product Picture



Blocking buffer: 5% NFDM/TBST

Primary Ab dilution: 1:5000

Primary Ab incubation condition: 2 hours at room temperature

Secondary Ab: Goat Anti-Rabbit IgG H&L (HRP)

Lysate: 1: HEK-293, 2: HepG2, 3: NIH/3T3, 4: RAW264.7

Protein loading quantity: 20 μg

Exposure time: 60 s

Predicted MW: 35 kDa

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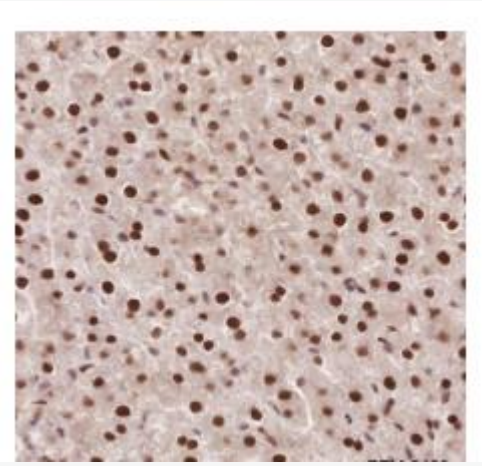
Observed MW: 37 kDa



Tissue: Rat liver

Section type: Formalin-fixed & Paraffin -

embedded section

Retrieval method: High temperature and high

pressure

Retrieval buffer: Tris/EDTA buffer, pH 9.0

Primary Ab dilution: 1:1000

Primary Ab incubation condition: 1 hour at

room temperature

Secondary Ab: Anti-Rabbit and Mouse

Polymer HRP (Ready to use)

Counter stain: Hematoxylin (Blue)

Comment: Color brown is the positive signal

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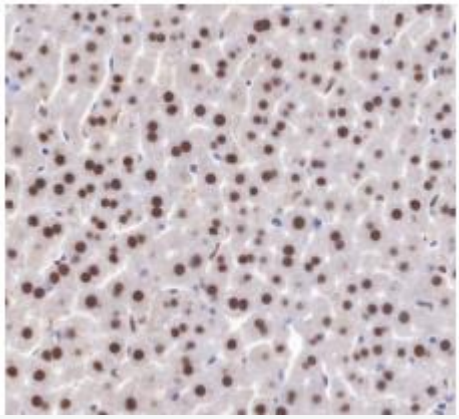

Tissue: Mouse liver

Section type: Formalin-fixed & Paraffin -

embedded section

Retrieval method: High temperature and high

pressure

Retrieval buffer: Tris/EDTA buffer, pH 9.0

Primary Ab dilution: 1:1000

Primary Ab incubation condition: 1 hour at

room temperature

Secondary Ab: Anti-Rabbit and Mouse

Polymer HRP (Ready to use)

Counter stain: Hematoxylin (Blue)

Comment: Color brown is the positive signal

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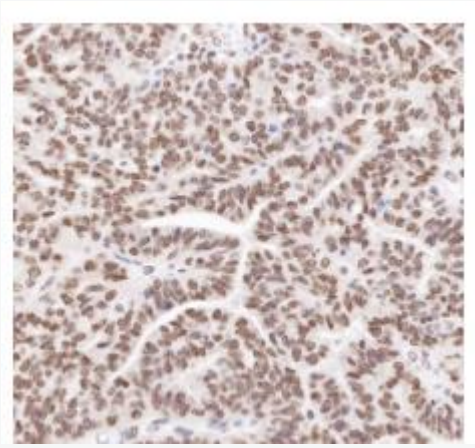

Tissue: Human ovarian carcinoma

Section type: Formalin-fixed & Paraffin -

embedded section

Retrieval method: High temperature and high

pressure

Retrieval buffer: Tris/EDTA buffer, pH 9.0

Primary Ab dilution: 1:1000

Primary Ab incubation condition: 1 hour at

room temperature

Secondary Ab: Anti-Rabbit and Mouse

Polymer HRP (Ready to use)

Counter stain:

Hematoxylin (Blue)

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