# Anti-APEX1 Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

Catalog # M014283

## Product Information

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| Application | WB, IHC-P/IF (Tissue-P), ELISA |
| Reactivity | Human, Rat |
| Dilution | WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200 |
| Host | Mouse |
| Clonality | Monoclonal |
| Clone No. | 79J80D56 |
| Isotype | IgG |
| Label | Unconjugated |
| Immunogen | Recombinant protein of human APEX1 |
| Format | Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3. |
| Storage | Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | Anti-APEX1 Mouse mAb [79J80D56] is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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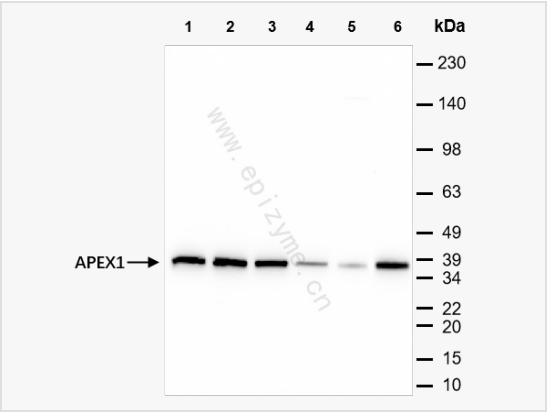
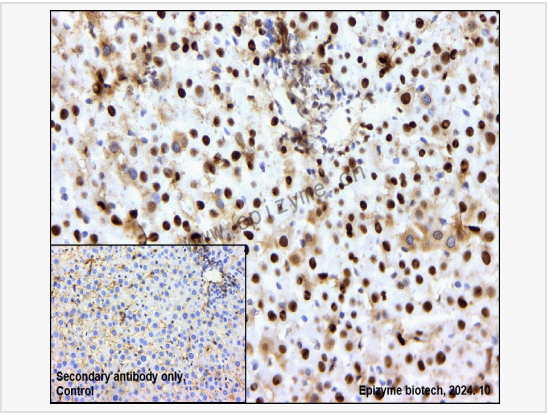
|---|---|
| Synonyms | AP endonuclease 1, AP endonuclease class I, AP lyase, APE 1, APE, APE-1, APEN, APEX 1, APEX, APEX nuclease (multifunctional DNA repair enzyme) 1, Apex nuclease 1, APEX nuclease, APEX1, APEX1_HUMAN, Apurinic endonuclease, Apurinic-apyrimidinic endonuclease 1, Apurinic/apyrimidinic (abasic) endonuclease, Apurinic/apyrimidinic endonuclease 1, Apurinic/apyrimidinic exonuclease, APX, BAP1, Deoxyribonuclease (apurinic or apyrimidinic), DNA (apurinic or apyrimidinic site) lyase, DNA-(apurinic or apyrimidinic site) lyase, mitochondrial, EC 4.2.99.18, HAP 1, HAP1, Human Apurinic endonuclease 1, MGC139790, Multifunctional DNA repair enzyme, Redox factor 1, Redox factor-1, REF 1, REF 1 protein, REF-1, REF1, REF1 protein. |
| Calculated MW | Calculated MW: 36 kDa; Observed MW: 36 kDa |
| Uniprot ID | P27695 |
| Gene ID | 328 |
| Background | 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]. |
| Cellular Location | Mitochondrion. The cleaved APEX2 is only detected in mitochondria (By similarity). Translocation from the cytoplasm to the mitochondria is mediated by ROS signaling and cleavage mediated by granzyme A. Tom20-dependent translocated |

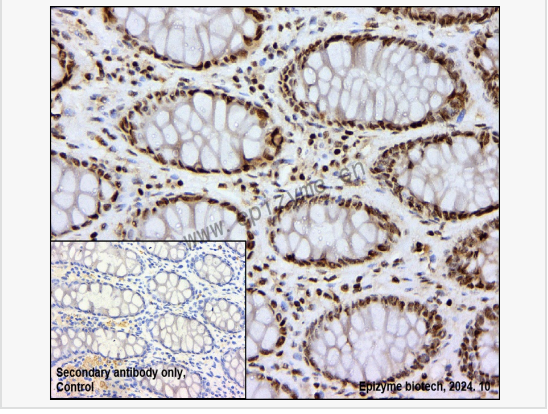
## Validation Images




Western Blot - Anti-APEX1 Mouse mAb [79J80D56]
All lanes: M014283 at 1:1,000 dilution
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates
Lane 4: A431 (Human epidermoid teratoma cell line) whole cell lysates
Lane 5: T24 (Human bladder cancer epithelial cell) whole cell lysates
Lane 6: Rat spleen whole tissue lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Mouse IgG(H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution
Predicted band size: 36 kDa
Observed band size: 36 kDa
Developed using the ECL technique (Cat. No. SQ201).




Immunohistochemistry - Anti-APEX1 Mouse mAb [79J80D56]
Sample: Paraformaldehyde-fixed, paraffin embedded rat liver tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: M014283 at 1:200 dilution
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.




Immunohistochemistry - Anti-APEX1 Mouse mAb [79J80D56]
Sample: Paraformaldehyde-fixed, paraffin embedded human colonic cancer tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: M014283 at 1:200 dilution
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.