

## Product datasheet for **TA301765**

### **APE1 (APEX1) Mouse Monoclonal Antibody [Clone ID: 13B8E5C2]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	13B8E5C2
<b>Applications:</b>	ChIP, ELISA, ICC/IF, IHC, Immunoblotting, IP, Simple Western, WB
<b>Recommended Dilution:</b>	Proximity Ligation Assay, Immunoblotting, ELISA, Chromatin Immunoprecipitation (ChIP): 1:10-1:500, Immunoprecipitation: 1:10 - 1:500, Immunohistochemistry-Frozen: 1:10-1:500, Immunohistochemistry: 1:100, Immunohistochemistry-Paraffin: 1:100, Western Blot: 1:100-1:2000, Simple Western: 1:25, Immunocytochemistry/ Immunofluorescence: 1:50-1:200, Gel Super Shift Assays, Knockdown Validated
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG2b
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	A fusion protein construct that contains the N-terminal region of human ACAT1.
<b>Formulation:</b>	PBS and 0.05% sodium azide
<b>Purification:</b>	Purified human APE/ref protein.
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Gene Name:</b>	apurinic/apyrimidinic endodeoxyribonuclease 1
<b>Database Link:</b>	<a href="#">NP_001632</a> <a href="#">Entrez Gene 11792 Mouse</a> <a href="#">Entrez Gene 79116 Rat</a> <a href="#">Entrez Gene 328 Human</a> <a href="#">P27695</a>



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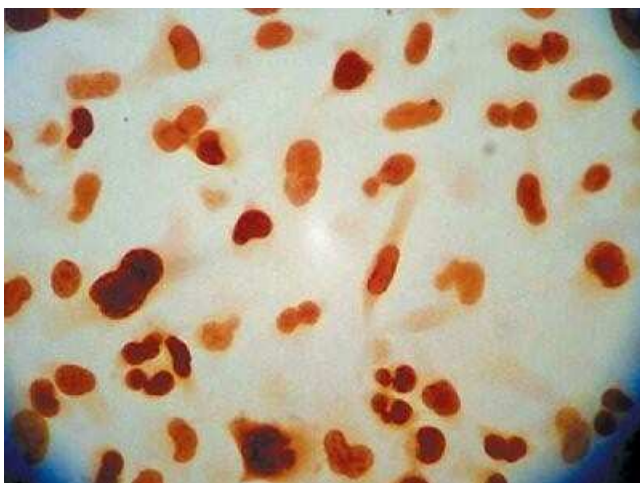
**Background:** The mammalian apurinic/apyrimidinic endonuclease (APE/ref-1) is responsible for the repair of AP sites in DNA. In addition, this enzyme functions as a redox factor facilitating the DNA binding capability of FOS, JUN, NfκB, HIF-1 alpha, Pax-5, Pax-8 and other transcription factors. APE/ref-1 has also been shown to control p53 activity through redox alteration. APE is linked to apoptosis, associated with thioredoxin, and altered levels of APE/ref-1 have been found in some cancers. APE appears to form a unique link between the DNA base excision pathway, oxidative signaling, transcription regulation, cancer and cell-cycle control.

**Synonyms:** APE; APE1; APEN; APEX; APX; HAP1; REF1

**Protein Families:** Druggable Genome, Stem cell - Pluripotency, Transcription Factors

**Protein Pathways:** Base excision repair

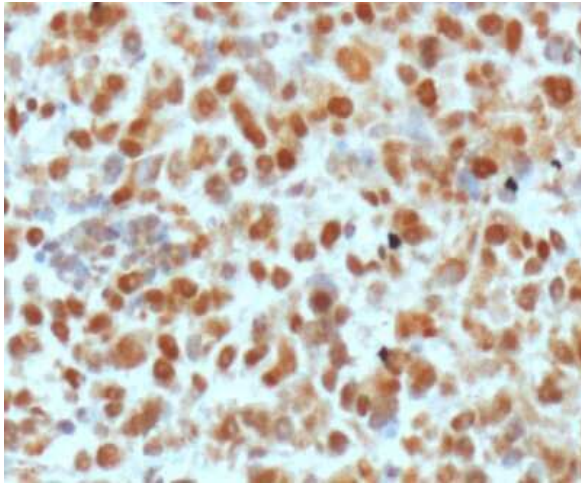
### Product images:



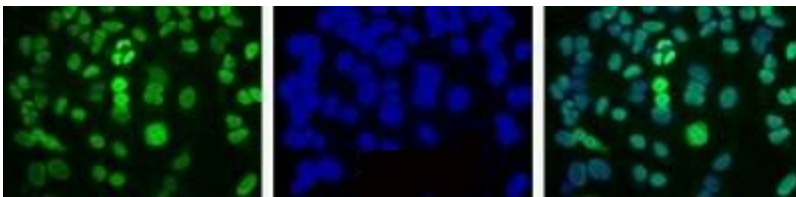
Immunocytochemistry/Immunofluorescence: APE Antibody (13B8E5C2) - BSA Free TA301765 - APE Antibody (13B8E5C2) TA301765 - Immunocytochemical detection of APE-ref-1 in breast cancer cell line MDA MB 231.



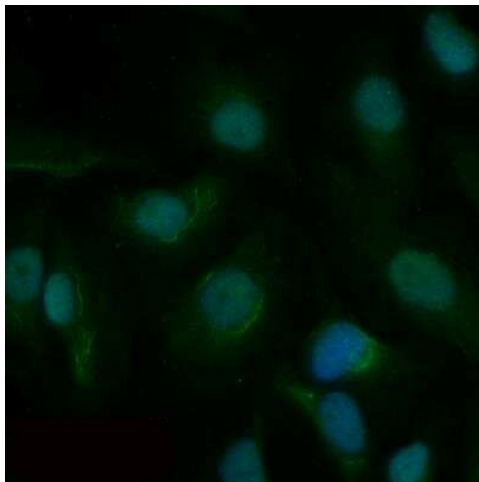
Simple Western: APE Antibody (13B8E5C2) - BSA Free TA301765 - APE Antibody (13B8E5C2) TA301765 - Image shows a specific band for APE1 in 0.1 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 12-230kDa separation system. \* Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.



Immunohistochemistry-Paraffin: APE Antibody (13B8E5C2) - BSA Free TA301765 - APE Antibody (13B8E5C2) TA301765 - APE1 antibody was tested in human breast cancer xenograft using DAB with hematoxylin counterstain.



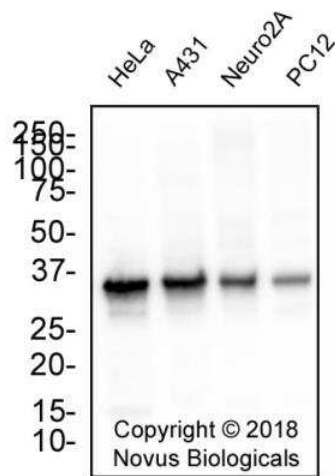
Immunocytochemistry/Immunofluorescence: APE Antibody (13B8E5C2) - BSA Free TA301765 - APE Antibody (13B8E5C2) TA301765 - HeLa cells stained TA301765 (Green) detected with DyLight Fluor 488 conjugated anti-rabbit IgG secondary antibody. Nuclei are counterstained with Hoechst 33258 (Blue).



Immunocytochemistry/Immunofluorescence: APE Antibody (13B8E5C2) - BSA Free TA301765 - APE Antibody (13B8E5C2) TA301765 - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton X-100. The cells were incubated with anti-APE (13B8E5C2) at 5 ug/mL overnight at 4C and detected with an anti-mouse DyLight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Western Blot: APE Antibody (13B8E5C2) - BSA Free TA301765 - APE Antibody (13B8E5C2) TA301765 - Ovarian Cancer cell lines.



Western Blot: APE Antibody (13B8E5C2) - BSA Free TA301765 - APE Antibody (13B8E5C2) TA301765 - Whole cell protein from human HeLa, A431, mouse Neuro2A and rat PC12 cells was separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/mL anti-APE-1 in block buffer and detected with an anti-mouse HRP secondary antibody using chemiluminescence.