

## APE1 monoclonal antibody

Catalog: MB66949

Host: Mouse

Reactivity: Human

### BackGround:

Ape1 (Apurinic/Apyrimidic eEndonuclease 1), also known as Ref1 (Redox effector factor 1), is a multifunctional protein with several biological activities. These include roles in DNA repair and in the cellular response to oxidative stress. Ape1 initiates the repair of abasic sites and is essential for the base excision repair (BER) pathway. Repair activities of Ape1 are stimulated by interaction with XRCC1, another essential protein in BER. Ape1 functions as a redox factor that maintains transcription factors in an active, reduced state but can also function in a redox-independent manner as a transcriptional cofactor to control different cellular fates such as apoptosis, proliferation and differentiation. Increased expression of Ape1 is associated with many types of cancers including cervical, ovarian, prostate, rhabdomyosarcomas and germ cell tumors. Ape1 has been shown to stimulate DNA binding of several transcription factors known to be involved in tumor progression such as Fos, Jun, NF- $\kappa$ B, PAX, HIF-1, HLF and p53. Mutation of the Ape1 gene has also been associated with amyotrophic lateral sclerosis (ALS).

### Product:

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

### Molecular Weight:

~ 34 kDa

### Swiss-Prot:

P27695

### Purification&Purity:

This antibody is purified through a protein G column.

### Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/ICC (1/10 - 1/50)

### Storage&Stability:

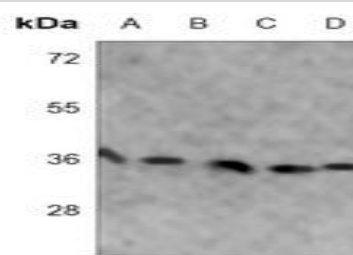
Store at 4 °C short term. Aliquot and store at -20 °C long

term. Avoid freeze-thaw cycles.

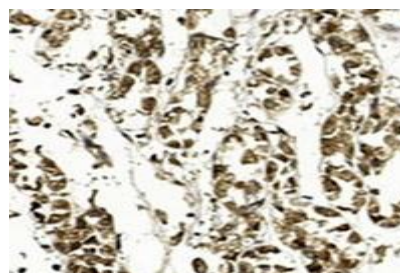
### Specificity:

Recognizes endogenous levels of APE1 protein.

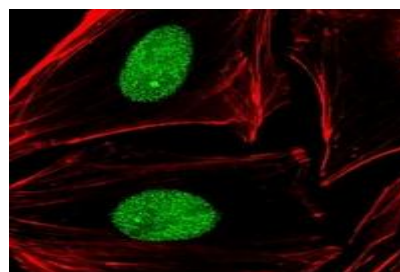
### DATA:



Western blot analysis of APE1 expression in A431 (A), Hela (B), HepG2 (C), K562 (D), PC3 (E) whole cell lysates.



Immunohistochemical analysis of APE1 staining in human stomach formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of APE1 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for

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## PRODUCT DATA SHEET

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5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF555 was used to stain the cytoplasm (red). DAPI was used to stain the cell nuclei (blue).

### Note:

For research use only, not for use in diagnostic procedure.

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