

## Recombinant Mouse Apex2 Protein, Myc/DDK-tagged

Cat. No. Apex2-1659M Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Purified recombinant protein of mouse full-length apurinic/aprimidinic endonuclease 2 (Apex2), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

**Species** Mouse

**Source** HEK293

**Description** Functions 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.

**Molecular Mass** 57.3 kDa

**Purity** > 80% as determined by SDS-PAGE and Coomassie blue staining

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<b>Stability</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>Storage</b>	Store at -80 centigrade after receiving vials.
<b>Concentration</b>	>50 µg/mL as determined by microplate BCA method
<b>Storage Buffer</b>	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

## GENE INFORMATION

<b>Gene Name</b>	Apex2 apurinic/apyrimidinic endonuclease 2 [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Apex2
<b>Synonyms</b>	APEX2; apurinic/apyrimidinic endonuclease 2; DNA-(apurinic or apyrimidinic site) lyase 2; APEX nuclease 2; AP endonuclease 2; apurinic-apyrimidinic endonuclease 2; ape2; C430040P13Rik
<b>Gene ID</b>	77622
<b>mRNA Refseq</b>	NM_029943
<b>Protein Refseq</b>	NP_084219
<b>UniProt ID</b>	Q68G58

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