

Datasheet for ABIN7564010
APEX2 Protein (AA 1-516) (His tag)



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Overview

Quantity:	1 mg
Target:	APEX2
Protein Characteristics:	AA 1-516
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This APEX2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Apex2 Protein expressed in mammalian cells.
Sequence:	<p>MLRVVSWNIN GIRSPLQGLA CQEPSSCPTA LRRVLDELDA DIVCLQETKV TRDVLTEPLA IVEGYNSYFS FSRSRSGYSG VATFCKDSAT PVAEEGLSG VFATLNGDIG CYGNMDEFTQ EELRVL DSEG RALLTQHKIR TLEGKEKTLT LINVYCPHAD PGKPERLTFK MRFYRLLQMR AEALLAAGSH VIILGDLNTA HRPIDHCDAS SLECFEEDPG RKWMDGLLSN PGDEAGPHIG LFMDSYRYLH PKQQRAFTCW SVVSGARHLN YGSRLDYVLG DRALVIDTFQ ASFLLPEVMG SDHCPVGAVL NVSCVPAKQC PALCTRFLPE FAGTQLKILR FLVPLEQEPV REQVLQPSH QIQAQRQPRK ACMHSTRLRK SQGGPKRKQK NLMSYFQPSS SLSQTSVEL PTLPLVGPLT TPKTAEEVAT ATVLEEKNKV PESKDEKGER TAFWKSMLSG PSPMPLCGGH REPCVMRTVK KTGPNFGRQF YMCARPRGPP SDPSSRCNFF LWSRPS Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</p>

Product Details

Specificity: If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

Characteristics: **Key Benefits:**

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity: > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

Grade: custom-made

Target Details

Target: APEX2

Alternative Name: Apex2 ([APEX2 Products](#))

Background: DNA-(apurinic or apyrimidinic site) endonuclease 2 (EC 3.1.11.2) (APEX nuclease 2) (Apurinic-apyrimidinic endonuclease 2) (AP endonuclease 2),FUNCTION: Functions as a weak apurinic/apyrimidinic (AP) endodeoxyribonuclease in the DNA base excision repair (BER) pathway of DNA lesions induced by oxidative and alkylating agents (By similarity). 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 (By similarity). Also displays 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 (By similarity). 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-

Target Details

dependent BER pathway (By similarity). Plays a role in reversing blocked 3' DNA ends, problematic lesions that preclude DNA synthesis (By similarity). Required for somatic hypermutation (SHM) and DNA cleavage step of class switch recombination (CSR) of immunoglobulin genes (PubMed:18025127, PubMed:19556307). Required for proper cell cycle progression during proliferation of peripheral lymphocytes (PubMed:15319281).

{ECO:0000250|UniProtKB:Q9UBZ4, ECO:0000269|PubMed:12573260, ECO:0000269|PubMed:15319281, ECO:0000269|PubMed:18025127, ECO:0000269|PubMed:19556307}.

Molecular Weight: 57.3 kDa

UniProt: [Q68G58](#)

Application Details

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months