

Recombinant human REF-1/APEX1 protein

Catalog Number: ATGP0881

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-318aa

UniProt No.

P27695

NCBI Accession No.

AAH19291.1

Alternative Names

Apurinic/aprimidinic endodeoxyribonuclease 1, APEX nuclease, APEN, multifunctional DNA repair enzyme 1, DNA-(apurinic or apyrimidinic site) endonuclease, AP endonuclease 1, APE-1, Redox factor-1, APE, APE1, APEX, APX, HAP1, REF1

PRODUCT SPECIFICATION

Molecular Weight

36.9 kDa (332aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 2mM DTT, 10% glycerol

Purity

> 90% by SDS-PAGE

Tag

T7-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

APEX1, also known as REF1 or APE1 (Apurinic / apyrimidinic endonuclease), is responsible for the incision of DNA basic sites during base excision repair. It has also been shown to stimulate the DNA binding activity of numerous transcription factors that are involved in cancer promotion and progression. APEX1 is part of the cellular response to oxidative stress and protects cells from the genotoxic and cytotoxic effect of oxidizing agents.

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Recombinant human APEX1 protein, fused to T7-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

<MASMTGGQQM GRGS>MPKRGK KGAVAEDGDE LRTEPEAKKS KTAACKNDKE AAGEGPALYE DPPDQKTSPS
GKPATLKICS WNV DGLRAWI KKKGLDWVKE EAPDILCLQE TKCSENKLPAL ELQELPGLSH QYWSAPSDKE GYSGVGLLSR
QCPLKVSYGI GEEHHDQEGR VIVAEFDSFV LVTAYVFNAG RGLVRLEYRQ RWDEAFRKFL KGLASRKPLV LCGDLNVAHE
EIDLRNPKGN KKNAGFTPQE RQFGGELLQA VPLADSRHL YPNTPYAYTF WTYMMNARSK NVGWRLDYFL LSHSLLPALC
DSKIRSKALG SDHCPITLYL AL

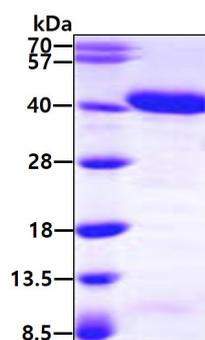
General References

Hinz AK., et al. (2010) *J Biol Chem.* 285(37):28683-90.

Wu HH., et al. (2010) *Oncogene.* 29(30):4330-40.

DATA

SDS-PAGE



3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain