

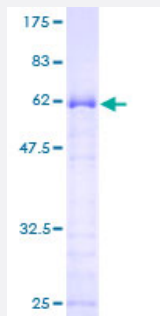
Full-Length

APEX1 (Human) Recombinant Protein (P01)

Catalog # H00000328-P01

Size 10 ug, 25 ug

Applications



Specification

Product Description

Human APEX1 full-length ORF (AAH02338, 1 a.a. - 318 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MPKRGKKGAVAEDGDELRTPEAKKSKTAAKKNDKEAAGEGPALYEDPPDQKTSPSGKPATLK
ICSWNVVDGLRAWIKKKGLDWVKEEAPDILCLQETKCSENKLPALQELPGLSHQYWSAPSDKEG
YSGVGLLSRQCPLKVSYGIGEEHDQEGRVVAFEDSFVLVTAYVPNAGRGLVRLEYRQRWDEAF
RKFLKGLASRKPLVLCGDLNVAHEEIDLRNPKGNKKNAGFTPQERQGFCELLQAVPLADSFRLHY
PNTPYAYTFWTMMNARSKNVGWRLDYFLSHSLLPALCDISKIRSKALGSDHCPITLYLAL

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

60.72

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — APEX1

Entrez GeneID	328
GeneBank Accession#	BC002338
Protein Accession#	AAH02338
Gene Name	APEX1
Gene Alias	APE, APE-1, APE1, APEN, APEX, APX, HAP1, REF-1, REF1
Gene Description	APEX nuclease (multifunctional DNA repair enzyme) 1
Omim ID	107748
Gene Ontology	Hyperlink
Gene Summary	Apurinic/aprimidinic (AP) sites occur frequently in DNA molecules by spontaneous hydrolysis, by DNA damaging agents or by DNA glycosylases that remove specific abnormal bases. AP sites are pre-mutagenic lesions that can prevent normal DNA replication so the cell contains systems to identify and repair such sites. Class II AP endonucleases cleave the phosphodiester backbone 5' to the AP site. This gene encodes the major AP endonuclease in human cells. Splice variants have been found for this gene; all encode the same protein. [provided by RefSeq]
Other Designations	AP endonuclease class II AP lyase APEX nuclease DNA-(apurinic or apyrimidinic site) lyase OTTHUMP00000163988 apurinic/aprimidinic (abasic) endonuclease apurinic/aprimidinic exonuclease deoxyribonuclease (apurinic or apyrimidinic) multifunctional DNA repair

Publication Reference

- [Bcl2 inhibits abasic site repair by down-regulating APE1 endonuclease activity.](#)

Zhao J, Gao F, Zhang Y, Wei K, Liu Y, Deng X.

The Journal of Biological Chemistry 2008 Feb; 283(15):9925.

Application: Enzyme, Human, NCI-H1299 cells, recombinant protein

Pathway

- [Base excision repair](#)

Disease

- [Acute Disease](#)
- [Adenocarcinoma](#)
- [Adenomatous Polyposis Coli](#)
- [Adenomyoma](#)
- [Alzheimer disease](#)
- [Amyotrophic lateral sclerosis](#)
- [Anoxia](#)
- [Arsenic Poisoning](#)
- [Ataxia telangiectasia](#)
- [Biliary Tract Neoplasms](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cerebrovascular Accident](#)
- [Chromosome Aberrations](#)
- [Chronic Disease](#)

- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colon cancer](#)
- [Colorectal Neoplasms](#)
- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [DNA Damage](#)
- [Endometriosis](#)
- [Esophageal Neoplasms](#)
- [Fibrosis](#)
- [Gallstones](#)
- [Genetic Predisposition to Disease](#)
- [Glioma](#)
- [Graft vs Host Disease](#)
- [Graves Disease](#)
- [Head and Neck Neoplasms](#)
- [Helicobacter Infections](#)
- [Kidney Failure](#)
- [Laryngeal Neoplasms](#)
- [Leukemia](#)
- [Lung Neoplasms](#)
- [Lymphatic Metastasis](#)
- [Lymphoma](#)
- [Malignant melanoma](#)

- [Melanoma](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Micronuclei](#)
- [Mouth Abnormalities](#)
- [Mouth Neoplasms](#)
- [Multiple Sclerosis](#)
- [Myocardial Infarction](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Papillomavirus Infections](#)
- [Pharyngeal Neoplasms](#)
- [Precancerous Conditions](#)
- [Pre-Eclampsia](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)
- [Radiation Injuries](#)
- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Spinal Dysraphism](#)

- [Stomach Neoplasms](#)
- [Stroke](#)
- [Thyroid Neoplasms](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Cervical Neoplasms](#)
- [Werner syndrome](#)