

## Product datasheet for **TP720082XL**

### **APE1 (APEX1) (NM\_001641) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant protein of human APEX nuclease (multifunctional DNA repair enzyme) 1 (APEX1), transcript variant 1
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	Pro2-Leu318
<b>Tag:</b>	Tag Free
<b>Predicted MW:</b>	35.6 kDa
<b>Concentration:</b>	lot specific
<b>Purity:</b>	>95% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	Provided lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl
<b>Bioactivity:</b>	Co-immunoprecipitation (PMID: <a href="#">27808278</a> )
<b>Endotoxin:</b>	< 0.1 EU per µg protein as determined by LAL test
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for at least 3 months from date of receipt under proper storage and handling conditions.
<b>RefSeq:</b>	<a href="#">NP_001632</a>
<b>Locus ID:</b>	328
<b>UniProt ID:</b>	<a href="#">P27695</a> , <a href="#">Q5TZP7</a>
<b>Cytogenetics:</b>	14q11.2
<b>Synonyms:</b>	APE; APE1; APEN; APEX; APX; HAP1; REF1



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**Summary:**

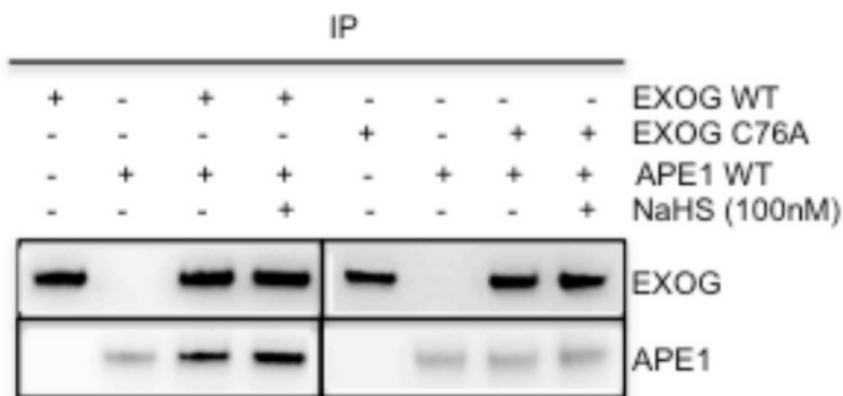
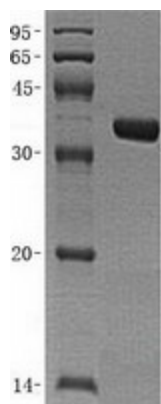
The APEX gene encodes the major AP endonuclease in human cells. It encodes the APEX endonuclease, a DNA repair enzyme with apurinic/apyrimidinic (AP) activity. Such AP activity sites occur frequently in DNA molecules by spontaneous hydrolysis, by DNA damaging agents or by DNA glycosylases that remove specific abnormal bases. The AP sites are the most frequent pre-mutagenic lesions that can prevent normal DNA replication. Splice variants have been found for this gene; all encode the same protein. Disruptions in the biological functions related to APEX are associated with many various malignancies and neurodegenerative diseases.[provided by RefSeq, Dec 2019]

**Protein Families:**

Druggable Genome, Stem cell - Pluripotency, Transcription Factors

**Protein Pathways:**

Base excision repair

**Product images:**


Co-immunoprecipitation experiments indicate NaHS, an H<sub>2</sub>S donor, enhances the interaction between wild-type (WT) EXOG and APE1. Wild-type or mutant (C76A) EXOG was mixed with APE1 (OriGene [TP720082]) with or without NaHS, and immunoprecipitates were analyzed in Western blot with the indicated antibodies. Figure cited from Sci Rep, PMID: 27808278