

## Recombinant Human APE1/APE Protein (His Tag)

Catalog No. PKSH030851

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

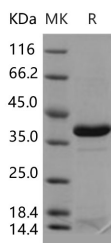
### Description

<b>Synonyms</b>	DNA-(Apurinic or Apyrimidinic Site) Lyase;APEX Nuclease;APEN;Apurinic-Apyrimidinic Endonuclease 1;AP Endonuclease 1;APE-1REF-1;Redox Factor-1;APEX1;APE;APE1;APEX;APX;HAP1;REF1
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Pro2-Leu 318
<b>Accession</b>	P27695
<b>Calculated Molecular Weight</b>	37.0 kDa
<b>Observed molecular weight</b>	37 kDa
<b>Tag</b>	N-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 92 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 92 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

The enzyme is known to be a redox factor (Ref-1) stimulating DNA binding activity of AP-1 binding proteins such as Fos and Jun as well as a multifunctional DNA repair enzyme having 5' AP endonuclease; DNA 3' repair diesterase; 3'-5' exonuclease and DNA 3'-phosphatase activities. Although Apex mRNA was expressed ubiquitously; the levels varied significantly; suggesting organ- or tissue-specific expression of the Apex gene. The highest level was observed in the testis; relatively high levels in the thymus; spleen; kidney and brain; and the lowest level in the liver in rats. However; the present results suggested that APEX/Ref-1 gene product can interact with AP-1 binding proteins in brain; especially in the hippocampal formation; to regulate some brain functions by redox-activation.