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# Recombinant Human APE1/APE Protein (His Tag)

Catalog Number: PKSH030851

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

#### **Description**

**Species** Human

Source E.coli-derived Human APE1/APE protein Pro2-Leu 318, with an N-terminal His

Calculated MW 37.0 kDa Observed MW 37 kDa Accession P27695

**Bio-activity** Not validated for activity

### **Properties**

Purity > 92 % as determined by reducing SDS-PAGE.

< 1.0 EU per  $\mu g$  of the protein as determined by the LAL method. Endotoxin

Storage 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.

This product is provided as lyophilized powder which is shipped with ice packs. Shipping

Lyophilized from sterile PBS, pH 7.5 Formulation

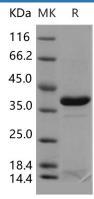
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

before lyophilization.

Please refer to the specific buffer information in the printed manual.

Please refer to the printed manual for detailed information. Reconstitution

## Data



> 92 % as determined by reducing SDS-PAGE.

# Background

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.

#### For Research Use Only