



Recombinant Protein Technical Manual

Recombinant Human APE1/APE Protein (His Tag)

RPES5180

Product Data:

Product SKU: RPES5180

Size: 20µg

Species: Human

Expression host: E. coli

Uniprot: P27695

Protein Information:

Molecular Mass: 37 kDa

AP Molecular Mass: 37 kDa

Tag: N-His

Bio-activity:

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

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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.

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

Formulation: Lyophilized from sterile PBS, pH 7.5

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: DNA-(Apurinic or Apyrimidinic Site) Lyase; APEX Nuclease; APEN; Apurinic-Apyrimidinic Endonuclease 1; AP Endonuclease 1; APEREF; Redox Factor; APEX1; APE; APE1; APEX; APX; HAP1; REF1

Immunogen Information:

Sequence: Pro2-Leu 318

Background:

The enzyme is known to be a redox factor (Ref) stimulating DNA binding activity of AP 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 gene product can interact with AP binding proteins in brain, especially in the hippocampal formation, to regulate some brain functions by redox-activation.