



Ref-1 Monoclonal Antibody

Catalog No	YP-mAb-01973
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	APEX1
Immunogen	The antiserum was produced against synthesized peptide derived from human APEX1. AA range:191-240
Specificity	Ref-1 Monoclonal Antibody detects endogenous levels of Ref-1 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	APE;APE1;APE-1;APEN;APEX;Ref-1;APEX1;DNA-(apurinic or apyrimidinic site) lyase;APX;HAP1;REF1;APEX nuclease;Apurinic-apyrimidinic endonuclease 1; AP endonuclease 1;Redox factor-1
Observed Band	34kD
Calculated Molecular Weight	34kD
Cell Pathway	Nucleus. Nucleus, nucleolus. Nucleus speckle. Endoplasmic reticulum. Cytoplasm. Detected in the cytoplasm of B-cells stimulated to switch (By similarity). Colocalized with SIRT1 in the nucleus. Colocalized with YBX1 in nuclear speckles after genotoxic stress. Together with OGG1 is recruited to nuclear speckles in UVA-irradiated cells. Colocalized with nucleolin and NPM1 in the nucleolus. Its nucleolar localization is cell cycle dependent and requires active rRNA transcription. Colocalized with calreticulin in the endoplasmic reticulum. Translocation from the nucleus to the cytoplasm is stimulated in presence of nitric oxide (NO) and function in a CRM1-dependent manner, possibly as a consequence of demasking a nuclear export signal (amino acid position 64-80). S-nitrosylation at Cys-93 and
Tissue Specificity	Brain,Embryonic stem cells,Lung,Melanocyte,Placenta,Skin,



Function

catalytic activity:The C-O-P bond 3' to the apurinic or apyrimidinic site in DNA is broken by a beta-elimination reaction, leaving a 3'-terminal unsaturated sugar and a product with a terminal 5'-phosphate.,**function:**Repairs oxidative DNA damages in vitro. May have a role in protection against cell lethality and suppression of mutations. Removes the blocking groups from the 3'-termini of the DNA strand breaks generated by ionizing radiations and bleomycin.,**similarity:**Belongs to the DNA repair enzymes AP/exoA family.,**subunit:**Monomer. Component of the SET complex, which also contains SET, ANP32A, HMGB2 and NME1.,

Background

Apurinic/apyrimidinic (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, Jul 2008],

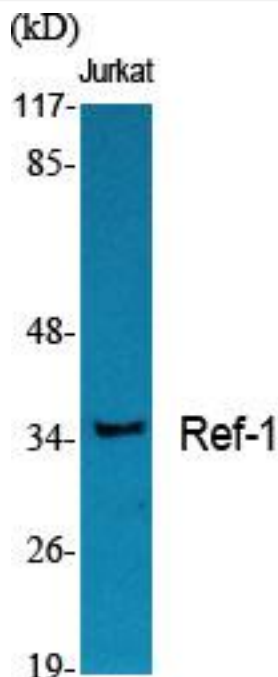
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using Ref-1 Monoclonal Antibody