

## Ref-1 Polyclonal Antibody

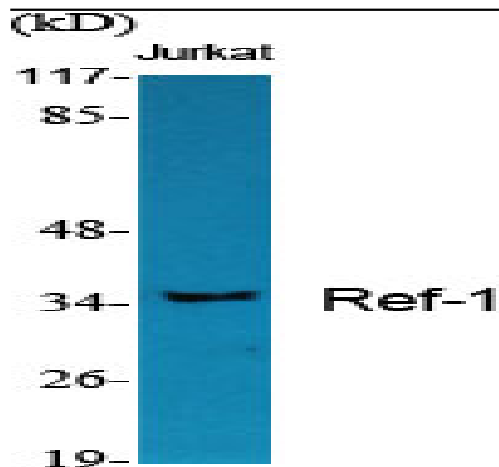
|                              |   |
|------------------------------|---|
| <b>Catalog No :</b>          | YT4039  |
| <b>Reactivity :</b>          | Human;Mouse;Rat   |
| <b>Applications :</b>        | WB;IHC;IF;ELISA   |
| <b>Target :</b>              | Ref-1   |
| <b>Fields :</b>              | >>Base excision repair  |
| <b>Gene Name :</b>           | APEX1   |
| <b>Protein Name :</b>        | DNA-(apurinic or apyrimidinic site) lyase   |
| <b>Human Gene Id :</b>       | 328   |
| <b>Human Swiss Prot No :</b> | P27695  |
| <b>Mouse Gene Id :</b>       | 11792   |
| <b>Mouse Swiss Prot No :</b> | P28352  |
| <b>Rat Gene Id :</b>         | 79116   |
| <b>Rat Swiss Prot No :</b>   | P43138  |
| <b>Immunogen :</b>           | The antiserum was produced against synthesized peptide derived from human APEX1. AA range:191-240 |
| <b>Specificity :</b>         | Ref-1 Polyclonal Antibody detects endogenous levels of Ref-1 protein.                             |
| <b>Formulation :</b>         | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                           |
| <b>Source :</b>              | Polyclonal, Rabbit,IgG  |
| <b>Dilution :</b>            | WB 1:500 - 1:2000. IHC: 1:100-300 ELISA: 1:20000.. IF 1:50-200                                    |

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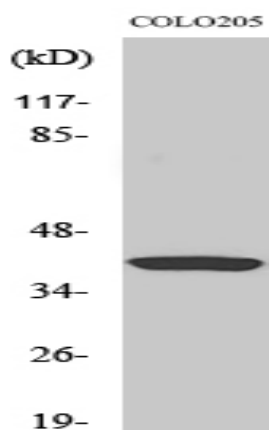
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|-------------------------------|---|
| <b>Purification :</b>         | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.   |
| <b>Concentration :</b>        | 1 mg/ml   |
| <b>Storage Stability :</b>    | -15°C to -25°C/1 year(Do not lower than -25°C)  |
| <b>Observed Band :</b>        | 34kD  |
| <b>Cell Pathway :</b>         | Base excision repair;   |
| <b>Background :</b>           | Apurinic/aprimidinic (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],  |
| <b>Function :</b>             | 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.,   |
| <b>Subcellular Location :</b> | 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 |
| <b>Expression :</b>           | Brain,Embryonic stem cells,Lung,Melanocyte,Placenta,Skin,   |

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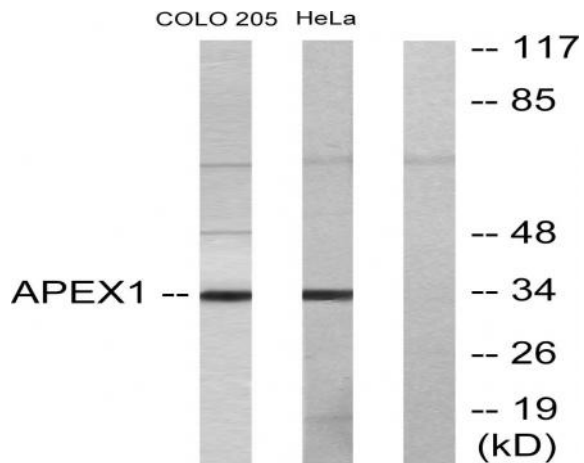
## Products Images



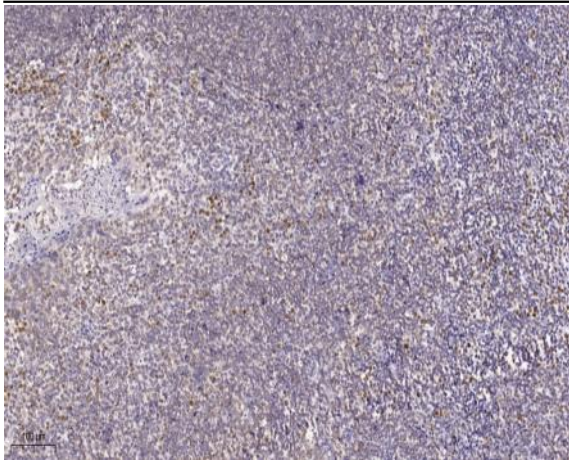
Western Blot analysis of various cells using Ref-1 Polyclonal Antibody diluted at 1:2000



Western Blot analysis of HeLa cells using Ref-1 Polyclonal Antibody diluted at 1:2000



Western blot analysis of lysates from COLO205 and HeLa cells, using APEX1 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Tris-EDTA, pH 9.0 was used for antigen retrieval. 2 Antibody was diluted at 1:200 (4° overnight). 3, Secondary antibody was diluted at 1:200 (room temperature, 45 min).