**Product Name: IDH1 Rabbit Polyclonal Antibody**
**Catalog #: APRab12353**

## Summary

| | |
|---|---|
| **Production Name** | IDH1 Rabbit Polyclonal Antibody |
| **Description** | Rabbit Polyclonal Antibody |
| **Host** | Rabbit |
| **Application** | WB,IHC,ELISA |
| **Reactivity** | Human,Mouse,Rat |

## Performance

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|---|---|
| **Conjugation** | Unconjugated |
| **Modification** | Unmodified |
| **Isotype** | IgG |
| **Clonality** | Polyclonal |
| **Form** | Liquid |
| **Storage** | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |
| **Buffer** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N. |
| **Purification** | Affinity purification |

## Immunogen

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|---|---|
| **Gene Name** | IDH1 |
| **Alternative Names** | IDH1; PICD; Isocitrate dehydrogenase [NADP] cytoplasmic; IDH; Cytosolic NADP-isocitrate dehydrogenase; IDP; NADP(+)-specific ICDH; Oxalosuccinate decarboxylase |
| **Gene ID** | 3417.0 |
| **SwissProt ID** | O75874.Synthesized peptide derived from the N-terminal region of human IDH1. |

## Application

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|---|---|
| **Dilution Ratio** | WB 1:500 - 1:2000. IHC: 1:100-1:300. ELISA: 1:20000.. |
| **Molecular Weight** | 46kD |

## Background

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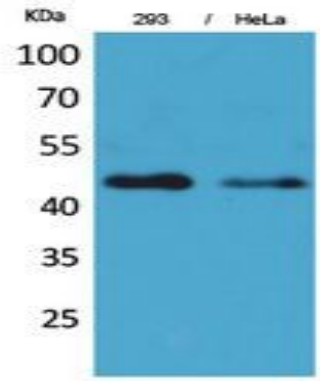
Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs tocatalytic activity:Isocitrate + NADP(+) = 2-oxoglutarate + CO(2) + NADPH.,catalytic activity:Oxalosuccinate + NADP(+) = 2-oxoglutarate + CO(2) + NADPH.,cofactor:Binds 1 magnesium or manganese ion per subunit.,disease:Defects in IDH1 are a cause of glioblastoma multiforme (GBM) [MIM:137800]; also called familial glioma of brain. Gliomas are central nervous system neoplasms derived from glial cells and comprise astrocytomas, glioblastoma multiforme, oligodendrogliomas, and ependymomas.,miscellaneous:Cancer mutations affecting Arg-132 are tissue-specific, and suggest that this residue plays a unique role in the development of high-grade gliomas.,online information:Isocitrate dehydrogenase entry,similarity:Belongs to the isocitrate and isopropylmalate dehydrogenases family.,subunit:Homodimer.,

## Research Area

Citrate cycle (TCA cycle);Glutathione metabolism;

## Image Data




Western Blot analysis of 293, HeLa cells using IDH1 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

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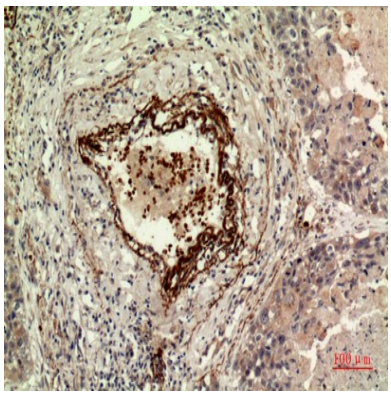
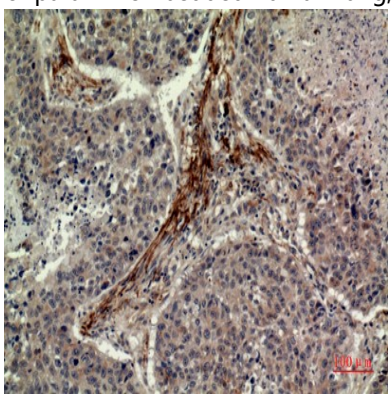
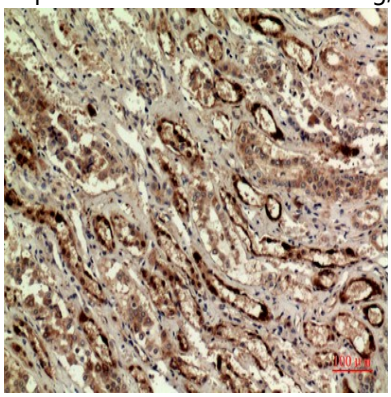


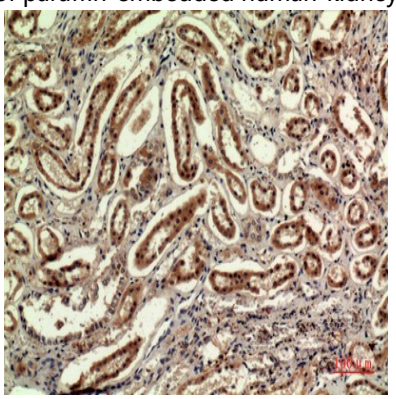
Immunohistochemical analysis of paraffin-embedded human-lung, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-lung, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-kidney, antibody was diluted at 1:100



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Immunohistochemical analysis of paraffin-embedded human-kidney, antibody was diluted at 1:100

## Note

For research use only.