Product Name: IDH1 Rabbit Polyclonal Antibody
Catalog #: APRab12353
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight	46kDa

Antigen Information

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
Immunogen	Synthesized peptide derived from the N-terminal region of human IDH1.

Background

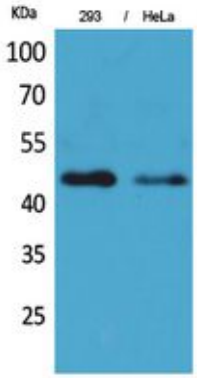
Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two

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.,

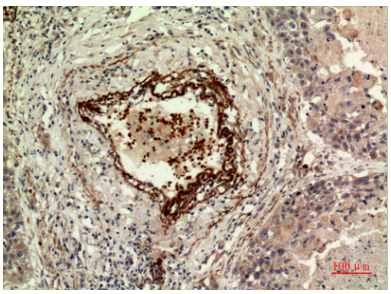
Research Area

Citrate cycle (TCA cycle);Glutathione metabolism;

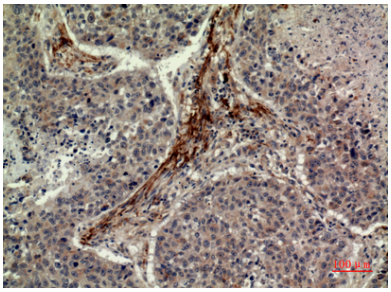
Image Data



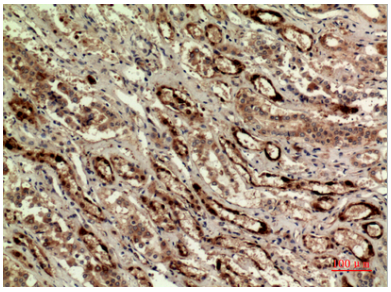
Western Blot analysis of 293, HeLa cells using IDH1 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



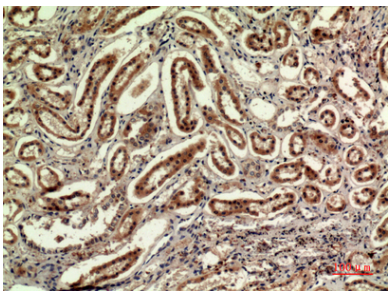
Immunohistochemical analysis of paraffin-embedded human-lung, antibody was diluted at 1:100



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



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