

## Basic Information

<b>Product Name</b>	Anti-IDH1 Antibody (Clone#OTI3G9)
<b>Gene Name</b>	IDH1
<b>Source</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG1
<b>Species Reactivity</b>	human, mouse, rat, dog
<b>Tested Application</b>	WB, IHC
<b>Contents</b>	PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
<b>Immunogen</b>	Synthetic peptide around the R132H mutation region of the human IDH conjugated to KLH
<b>Concentration</b>	500 ug/ml
<b>Purification</b>	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
<b>Observed MW</b>	47 kDa
<b>Dilution Ratios</b>	Western blot (WB): 1:2000 Immunohistochemistry (IHC):1:150

## Storage

Stable for 12 months from date of receipt. Store at -20°C as received.

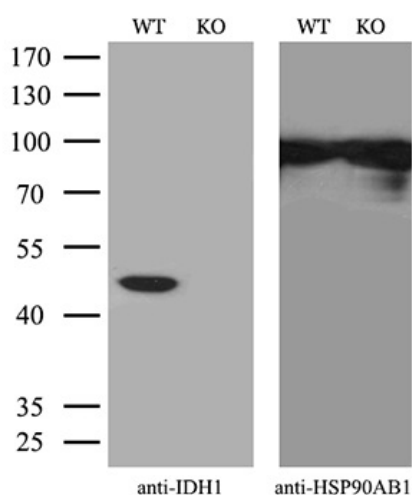
## Background Information

Isocitrate dehydrogenase 1 (NADP+), soluble is an enzyme that in humans is encoded by the IDH1 gene. 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 to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Alternatively spliced transcript variants encoding the same protein have been found for this gene.

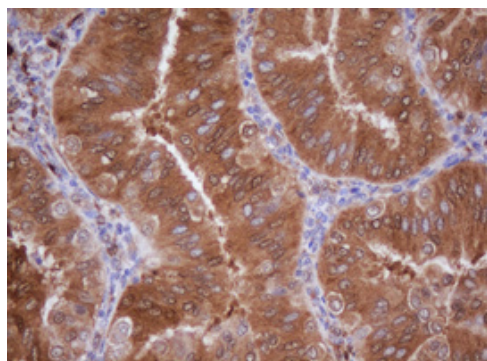
## Reference

Anti-IDH1 Antibody (Clone#OTI3G9)被引用在1文献中。

## Selected Validation Data



Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT) and IDH1-Knockout HeLa cells (KO) were separated by SDS-PAGE and immunoblotted with anti-IDH1 monoclonal antibody M00129-3. Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([M01692-2]) as a loading control (1:500).



Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-IDH1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, M00129-3)