

**IDH1 Antibody**  
Catalog # ASC11154

**Specification**

**IDH1 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O75874</a>
Other Accession	<a href="#">NP_005887</a> , <a href="#">28178825</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>IgG</b>
Application Notes	<b>IDH1 antibody can be used for detection of IDH1 by Western blot at 1 - 2 µg/mL.</b>

**IDH1 Antibody - Additional Information**

Gene ID	<b>3417</b>
Target/Specificity	<b>IDH1;</b>

**Reconstitution & Storage**

IDH1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

IDH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

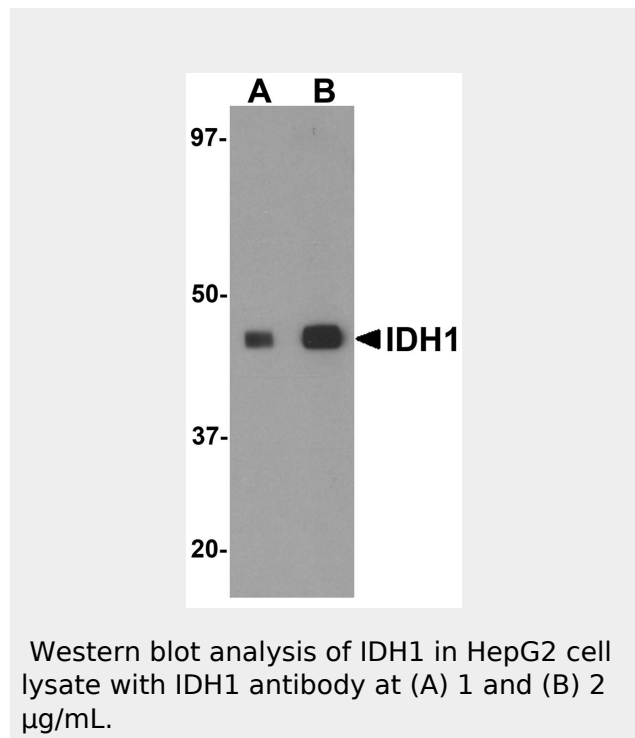
**IDH1 Antibody - Protein Information**

**Name** IDH1

**Synonyms** PICD

**Cellular Location**

Cytoplasm, cytosol. Peroxisome



**IDH1 Antibody - Background**

IDH1 Antibody: 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(+). Two NADP(+)-dependent isocitrate dehydrogenases have been found as homodimer: IDH1 is predominantly cytosolic and peroxisomal and IDH2 is mitochondrial. The presence of IDH1 in peroxisomes suggests it may play a role 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 IDH1 serves a significant role in cytoplasmic NADPH production. Defects in IDH1 are involved in the development of glioma.

**IDH1 Antibody - References**

## **IDH1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Geisbrecht BV and Gould SJ. The human PICD gene encodes a cytoplasmic and peroxisomal NADP(+)-dependent isocitrate dehydrogenase. *J. Biol. Chem.*1999; 274:30527-33.

Xu X, Zhao J, Xu Z, et al. Structures of human cytosolic NADP-dependent isocitrate dehydrogenase reveal a novel self-regulatory mechanism of activity. *J. Biol. Chem.*2004; 279:33946-57.

Dang L, White DW, and Gross S.

Cancer-associated IDH1 mutations produce 2-hydroxyglutarate. *Nature*2009; 462:739-44.  
Smeitink J. Metabolism, gliomas, and IDH1. *N. Engl. J. Med.*2010; 362:1144-5.