

**IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone IDH1/1152 ]**  
**Catalog # AH11495****Specification****IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide - Product Information**

Application	WB, IHC, IF, FC
Primary Accession	<a href="#">075874</a>
Other Accession	<a href="#">3417</a> , <a href="#">593422</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	45-47kDa KDa

**IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide - Additional Information****Gene ID** 3417**Other Names**

Isocitrate dehydrogenase [NADP] cytoplasmic, IDH, 1.1.1.42, Cytosolic NADP-isocitrate dehydrogenase, IDP, NADP(+)-specific ICDH, Oxalosuccinate decarboxylase, IDH1, PICD

**Application Note**

WB~1:1000  
IHC~1:100~500  
IF~1:50~200  
FC~1:10~50

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide - Protein Information****Name** IDH1**Synonyms** PICD**Function**

Catalyzes the NADP(+)-dependent oxidative decarboxylation of isocitrate (D-threo-isocitrate) to 2-ketoglutarate (2-oxoglutarate), which is required by other enzymes such as the phytanoyl-CoA dioxygenase (PubMed: [10521434](http://www.uniprot.org/citations/10521434)), PubMed: [19935646](http://www.uniprot.org/citations/19935646)). Plays a critical role in the generation of NADPH, an important cofactor in many biosynthesis pathways (PubMed: [10521434](#)).

<http://www.uniprot.org/citations/10521434>). May act as a corneal epithelial crystallin and may be involved in maintaining corneal epithelial transparency (By similarity).

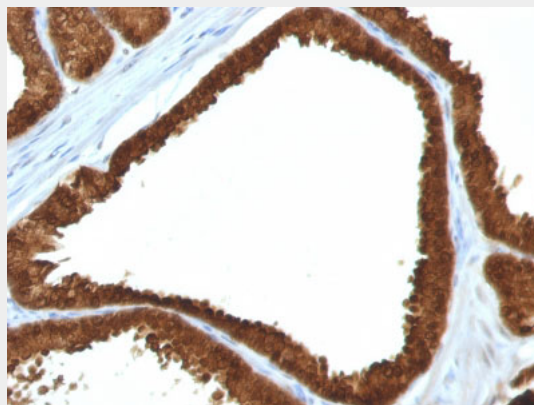
**Cellular Location**

Cytoplasm, cytosol. Peroxisome

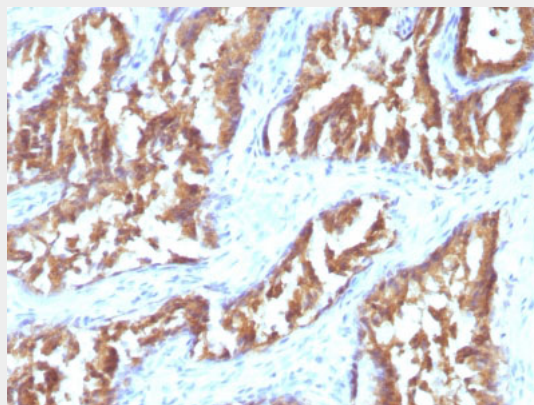
**IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide - Protocols**

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](#)

**IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide - Images**

Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with IDH1 Monoclonal Antibody (IDH1/1152).



Formalin-fixed, paraffin-embedded human Prostate Carcinoma stained with IDH1 Monoclonal Antibody (IDH1/1152).

**IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide - Background**

It recognizes a 45kDa protein, which is identified as isocitrate dehydrogenase (IDH1). It belongs to the isocitrate and isopropylmalate dehydrogenases family. IDH1 catalyzes the third step of the citric acid cycle, which involves the oxidative decarboxylation of isocitrate, forming  $\alpha$ -ketoglutarate and CO<sub>2</sub> in a two-step reaction. The first step involves the oxidation of isocitrate to the intermediate oxalosuccinate, while the second step involves the production of  $\alpha$ -ketoglutarate. During this process, either NADH or NADPH is produced along with CO<sub>2</sub>. Recently, an inactivating mutation of IDH1 has been implicated in glioblastoma. IDH1 appears to function as a tumor suppressor that, when mutationally inactivated, contributes to tumorigenesis in part through induction of the HIF-1 pathway.

#### **IDH1 (Isocitrate Dehydrogenase) Antibody - With BSA and Azide - References**

Geisbrecht, B.V. and Gould, S.J. 1999. The human PICD gene encodes a cytoplasmic and peroxisomal NADP<sup>+</sup>-dependent isocitrate dehydrogenase. J. Biol. Chem. 274: 30527-30533