10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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	**,1,2,3,4,**
Primary Accession	O75874
Other Accession	3417, 593422
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

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, PubMed:19935646). Plays a critical role in the generation of NADPH, an important cofactor in many biosynthesis pathways (PubMed:10521434). May act as a corneal epithelial crystallin and may be involved in maintaining corneal epithelial transparency (By similarity).

Cellular Location

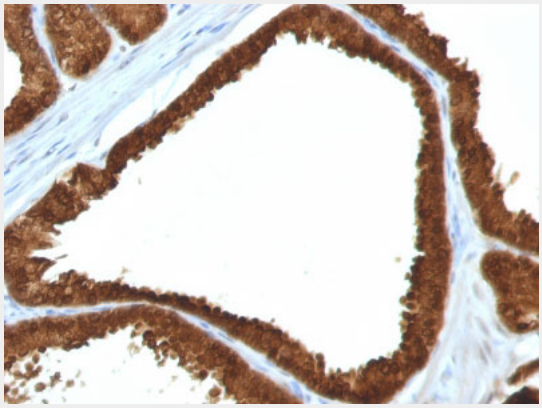
Cytoplasm, cytosol. Peroxisome

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

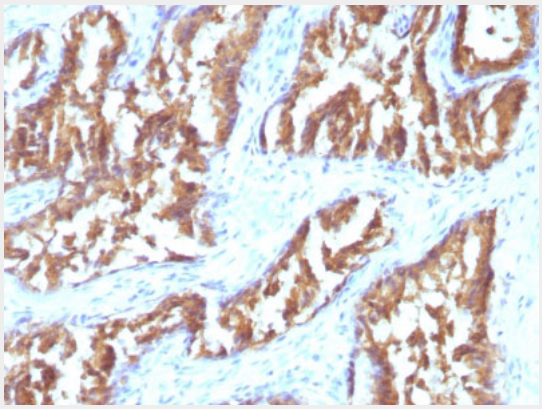
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- 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 Ī -ketoglutarate and

CO2 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 Ī -ketoglutarate. During this process, either NADH or NADPH is produced along with CO2. 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+-dependent isocitrate dehydrogenase. J. Biol. Chem. 274: 30527-30533