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

Mouse Monoclonal Antibody to IDH1

Purified Mouse Monoclonal Antibody
Catalog # AO2435a

Specification

Mouse Monoclonal Antibody to IDH1 - Product Information

Application	**E, WB, FC**
Primary Accession	O75874
Reactivity	**Human, Mouse, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**46.7kDa KDa**

Description
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.;

Immunogen
Purified recombinant fragment of human IDH1 (AA: 156-298) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

Application Note
ELISA: 1/10000; WB: 1/500 - 1/2000; FCM: 1/200 - 1/400

Mouse Monoclonal Antibody to IDH1 - Additional Information

Gene ID 3417

Other Names
IDH; IDP; IDCD; IDPC; PICD; HEL-216; HEL-S-26

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

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

Mouse Monoclonal Antibody to IDH1 - 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).

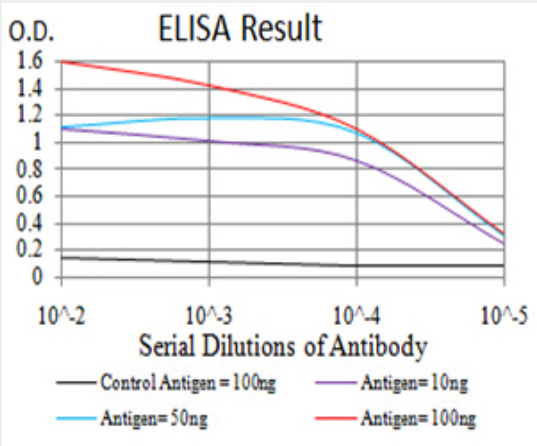
Cellular Location
Cytoplasm, cytosol. Peroxisome

Mouse Monoclonal Antibody to IDH1 - Protocols

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

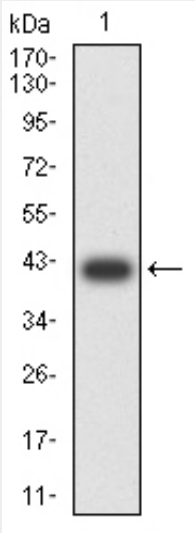
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mouse Monoclonal Antibody to IDH1 - Images

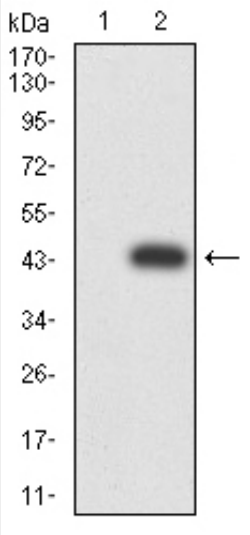


10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

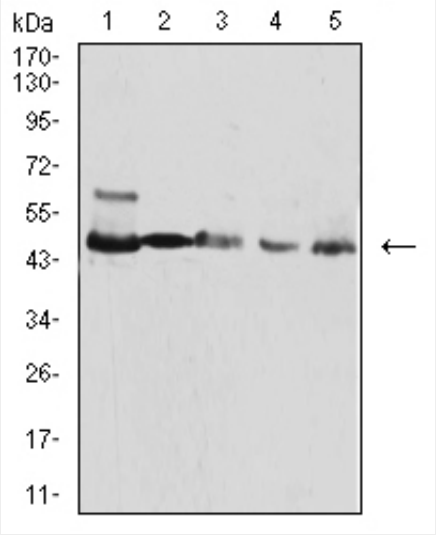


Western blot analysis using IDH1 mAb against human IDH1 (AA: 156-298) recombinant protein. (Expected MW is 41.8 kDa)

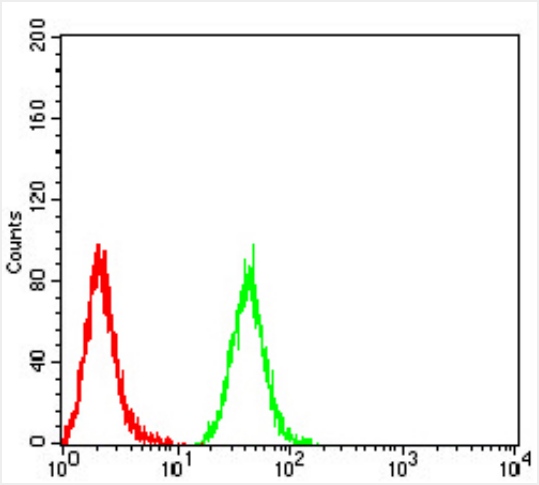


Western blot analysis using IDH1 mAb against HEK293 (1) and IDH1 (AA: 156-298)-hIgGFc transfected HEK293 (2) cell lysate.

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



Western blot analysis using IDH1 mouse mAb against HepG2 (1), NIH/3T3 (2), C2C12 (3), COS7 (4), and SW480 (5) cell lysate.



Flow cytometric analysis of Hela cells using IDH1 mouse mAb (green) and negative control (red).

Mouse Monoclonal Antibody to IDH1 - References

1.Cancer Cell. 2015 Dec 14;28(6):773-84. ; 2.Int J Cancer. 2015 Sep 1;137(5):1058-65. ;