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**Product Name: IDH1 Mouse Monoclonal Antibody****Catalog #: AMM81763**

For research use only.

**Summary**

<b>Description</b>	Mouse monoclonal Antibody
<b>Host</b>	Mouse
<b>Application</b>	WB,ELISA,FC
<b>Reactivity</b>	Human,Mouse,Monkey
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	Mouse IgG1
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Purified antibody in PBS with 0.05% sodium azide
<b>Purification</b>	Affinity Purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,ELISA 1:5000-1:20000,FC 1:200-1:400
<b>Molecular Weight</b>	46.7kDa

**Antigen Information**

<b>Gene Name</b>	IDH1
<b>Alternative Names</b>	IDH; IDP; IDCD; IDPC; PICD; HEL-216; HEL-S-26
<b>Gene ID</b>	3417.0
<b>SwissProt ID</b>	O75874
<b>Immunogen</b>	Purified recombinant fragment of human IDH1 (AA: 156-298) expressed in E. Coli.

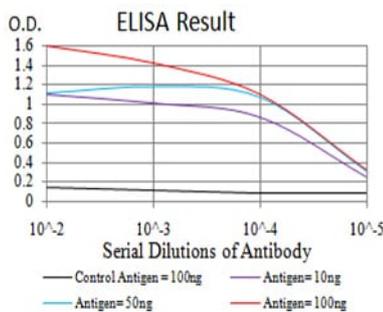
**Background**

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

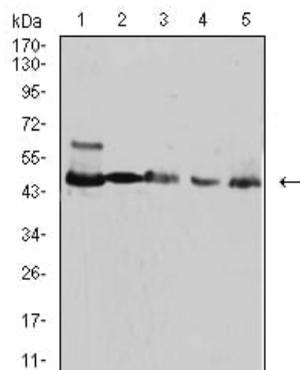
matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It 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.

## Research Area

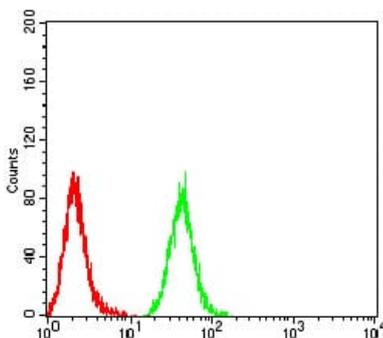
### Image Data



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 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).