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IDH1 Rabbit mAb

Catalog No.: A24133

Recombinant | 1 Publications

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Basic Information

Observed MW
47 kDa

Calculated MW
47kDa

Category
Monoclonal Antibodies

Applications
WB, IF/ICC, IF-F, ELISA

Cross Reactivity
Human, Mouse, Rat

Clone No.
ARC54139

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.

Recommended Dilutions

WB	1:1000 - 1:5000
IF/ICC	1:50 - 1:200
IF-F	1:200 - 1:400

ELISA
Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
3417

Swiss-Prot
O75874

Immunogen
Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms
IDH; IDP; IDCD; IDPC; PICD; HEL-216; HEL-S-26; IDH1

Contact

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Product Information

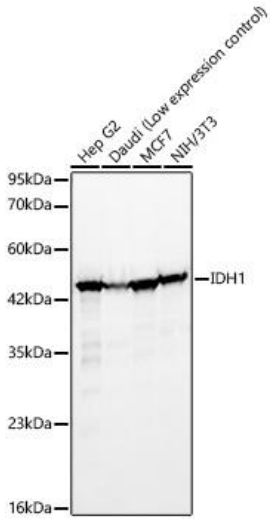
Source
Rabbit

Isotype
IgG

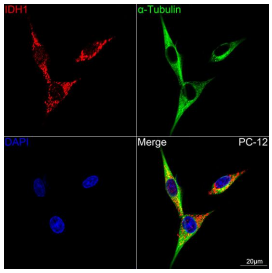
Purity
Affinity purification

Storage
Store at -20℃

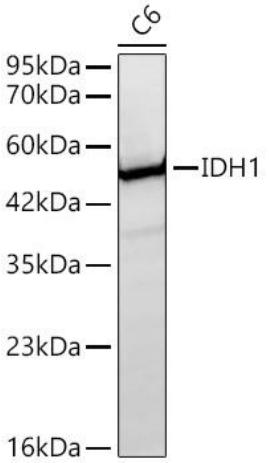
Validation Data



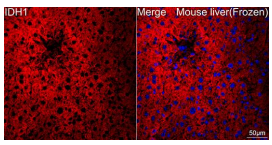
Western blot analysis of various lysates using IDH1 Rabbit mAb (A24133) at 1:1000 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1: 10000 dilution.
Lysates / proteins: 25 µg per lane.
Blocking buffer: 3 % nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 15s.



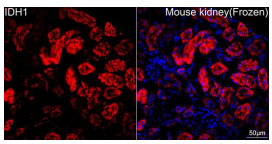
Confocal imaging of PC-12 cells using IDH1 Rabbit mAb (A24133,dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500)(Red).The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green).DAPI was used for nuclear staining (Blue). Objective: 100x.



Western blot analysis of lysates from C6 cells using IDH1 Rabbit mAb (A24133) at 1: 1000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1: 10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 20s.



Confocal imaging of frozen sections of Mouse liver tissue using IDH1 Rabbit mAb (A24133, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Microwave antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



Confocal imaging of frozen sections of Mouse kidney tissue using IDH1 Rabbit mAb (A24133, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Microwave antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.