A13245

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[KO Validated] IDH1 Rabbit pAb

Catalog No.: A13245 KO Validated 3 Publications

Basic Information

Observed MW
46kDa

Calculated MW
47kDa

Category
Polyclonal Antibody

Applications
WB,IF/ICC,IP,ELISA

Cross-Reactivity
Human,Mouse,Rat

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	1:500 - 1:1000
IF/ICC	1:50 - 1:200
IP	0.5μg-4μg antibody for 200μg-400μg extracts of whole cells
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
Recombinant protein (or fragment).This information is considered to be commercially sensitive.

Synonyms
IDH; IDP; IDCD; IDPC; PICD; HEL-216; HEL-S-26; H1

Product Information

Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.01% thimerosal,50% glycerol,pH7.3.

Contact

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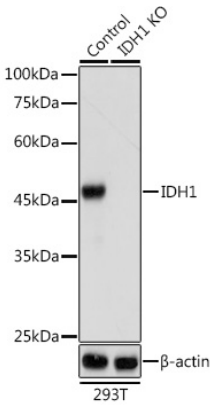
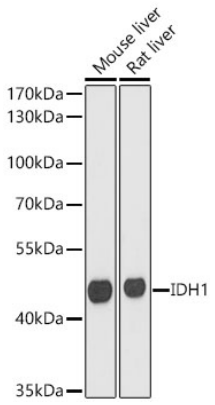
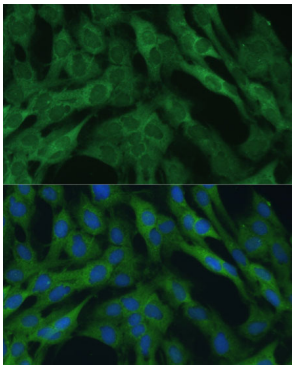
Validation Data



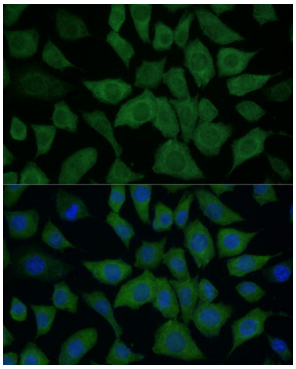
Western blot analysis of lysates from wild type (WT) and IDH1 knockout (KO) 293T cells, using [KO Validated] IDH1 Rabbit pAb (A13245) at 1:1000 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 60s.



Western blot analysis of various lysates using IDH1 Rabbit pAb (A13245) at 1:3000 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: 30s.

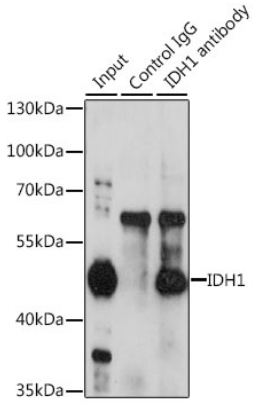


Immunofluorescence analysis of C6 cells using [KO Validated] IDH1 Rabbit pAb (A13245) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of L929 cells using [KO Validated] IDH1 Rabbit pAb (A13245) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.

Validation Data



Immunoprecipitation analysis of 200 μg extracts of HeLa cells, using 3 μg IDH1 antibody (A13245). Western blot was performed from the immunoprecipitate using IDH1 antibody (A13245) at a dilution of 1:1000.