

# [KO Validated] IDH1 Rabbit pAb

Catalog No.: A13245 **KO** **Validated** **3 Publications**

## Basic Information

### Observed MW

46kDa

### Calculated MW

47kDa

### Category

Primary antibody

### Applications

ELISA, WB, IF/ICC, IP

### 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

## Immunogen Information

### Gene ID

3417

### Swiss Prot

O75874

### Immunogen

Recombinant fusion protein containing a sequence corresponding to amino acids 1-414 of human IDH1 (NP\_005887.2).

### Synonyms

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

## Contact

 | [www.abclonal.com](http://www.abclonal.com)

## Product Information

### Source

Rabbit

### Isotype

IgG

### Purification

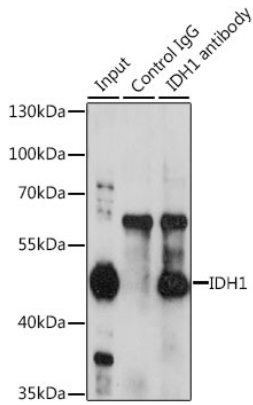
Affinity purification

### Storage

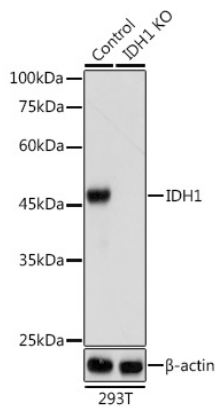
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.01% thimerosal, 50% glycerol, pH7.3.

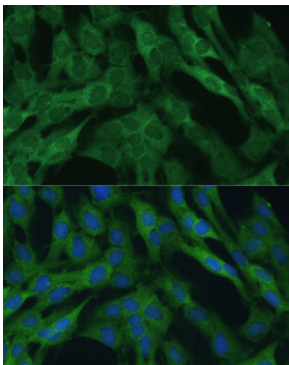
## Validation Data



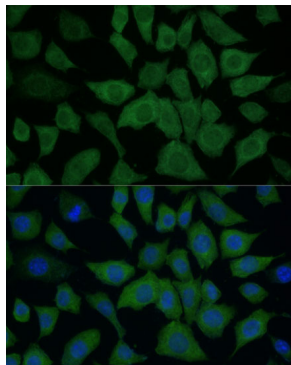
Immunoprecipitation analysis of 200 µg extracts of HeLa cells, using 3 µg IDH1 antibody (A13245). Western blot was performed from the immunoprecipitate using IDH1 antibody (A13245) at a dilution of 1:1000.



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 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.



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