

# Human Isocitrate Dehydrogenase 1/IDH1 antibody

Catalog Number: ATGA0409

## PRODUCT INFORMATION

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**Catalog number**

ATGA0409

**Clone No.**

AT25H10

**Product type**

Monoclonal Antibody

**UnitProt No.**

O75874

**NCBI Accession No.**

NP\_005887

**Alternative Names**

Isocitrate dehydrogenase [NADP] cytoplasmic, IDCD, IDH, IDP, IDPC, PICD

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human IDH1 (1-414aa) purified from E. coli

**Isotype**

IgG2a kappa

**Purification Note**

By protein-A affinity chromatography

**Application**

ELISA, WB, ICC/IF

**Usage**

The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

**Storage**

# Human Isocitrate Dehydrogenase 1/IDH1 antibody

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Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

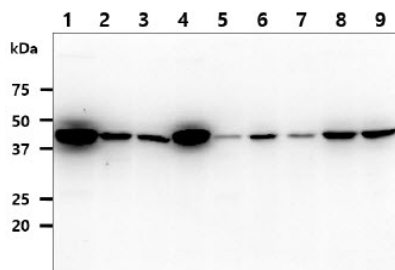
IDH1, also known as isocitrate dehydrogenase (IDHC) cytoplasmic enzyme, belongs to the isocitrate and isopropylmalate dehydrogenases family. This protein catalyzes the third step of the citric acid cycle, which involves the oxidative decarboxylation of isocitrate, forming alpha-ketoglutarate and CO<sub>2</sub> in a two-step reaction. The first step involves the oxidation of isocitrate to the intermediate oxalosuccinate, while the second step involves the production of alpha-ketoglutarate. IDH1 is expressed in a wide range of species and also in organisms that lack a complete citric acid cycle.

### General References

Bleeker FE., et al. (2009) Hum Mutat. 30(1): 7-11.  
Zhao S., et al. (2009) Science. 324(5924): 261-5.

## DATA

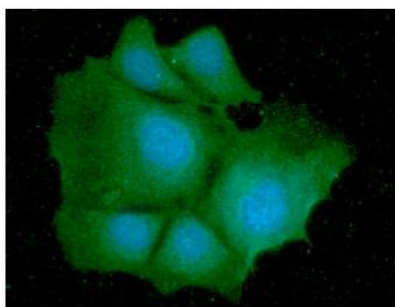
### Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human IDH1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1 : HepG2 cell lysate  
Lane 2 : A549 cell lysate  
Lane 3 : HeLa cell lysate  
Lane 4 : NIH3T3 cell lysate  
Lane 5 : Jurkat cell lysate  
Lane 6 : K562 cell lysate  
Lane 7 : 293T cell lysate  
Lane 8 : MCF7 cell lysate  
Lane 9 : LnCaP cell lysate

### Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of IDH1 in Hep3B cells. The cell was stained with ATGA0409 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).