

Human Isocitrate Dehydrogenase 1/IDH1 antibody

Catalog Number: ATGA0409

PRODUCT INFORMATION

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

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

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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 CO₂ 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.

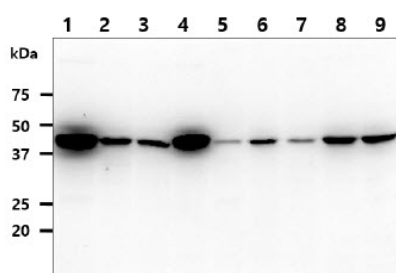
General References

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

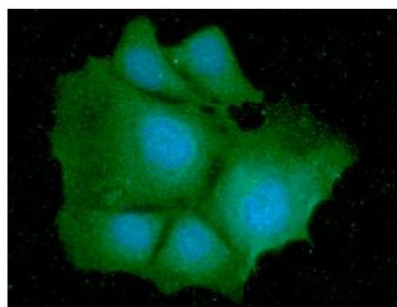
Lane 6 : K562 cell lysate

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).