

Human Lactate Dehydrogenase A/LDHA antibody

Catalog Number: ATGA0574

PRODUCT INFORMATION

Catalog number

ATGA0574

Clone No.

AT1A4

Product type

Monoclonal Antibody

UnitProt No.

P00338

NCBI Accession No.

NP_005557

Alternative Names

Lactate dehydrogenase A, L-lactate dehydrogenase A chain, Cell proliferation-inducing gene 19 protein, PIG19, LDH muscle subunit, LDH-M, Renal carcinoma antigen NY-REN-59

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 LDHA (1-332aa) purified from E.coli

Isotype

IgG2b kappa

Purification Note

By protein-G 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.

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Storage

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

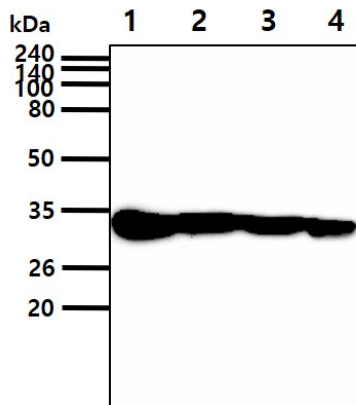
Lactate through lactate dehydrogenase A (LDHA), which is encoded by a target gene of c-Myc and hypoxia-inducible factor (HIF-1). LDHA expression is repressed by SugR in the absence of sugar. Reduction of LDHA causes bioenergetic and oxidative stress leading to cell death. LDHA (LDH-5, M-LDH, or A4), which is the predominant form in skeletal muscle, kinetically favors the conversion of pyruvate to lactate. Therefore, LDH-A is an attractive target for cancer therapy since its expression is largely relegated to skeletal muscle.

General References

- Le A, et al. (2010) Proc Natl Acad Sci U S A, 107(5):2037-42.
- Xie H, et al. (2009) Mol Cancer Ther, 8(3):626-35.
- Toyoda K, et al. (2010) J Bacteriol, 191(13):4251-8.

DATA

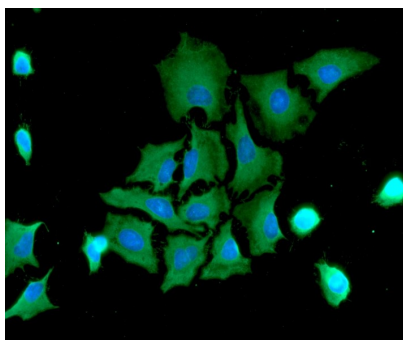
Western blot analysis (WB)



The cell lysates(40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human HSP60 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

- Lane 1.: HeLa cell lysate
- Lane 2.: Jurkat cell lysate
- Lane 3.: 293T cell lysate
- Lane 4.: A431 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



Flow cytometry analysis of Lactate Dehydrogenase A/LDHA in HeLa cells. The cell was stained with ATGA0574 at 2-5ug for 1×10^6 cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).