

# Human Lactate Dehydrogenase A/LDHA antibody

Catalog Number: ATGA0574

## PRODUCT INFORMATION

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**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

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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 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.

# Human Lactate Dehydrogenase A/LDHA antibody

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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

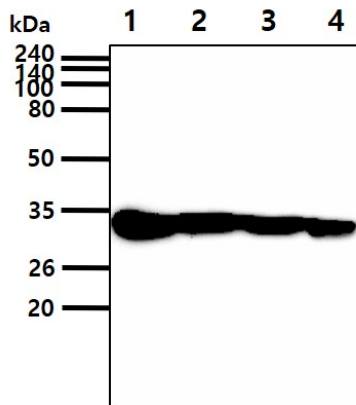
Le A, et al. (2010) Proc Natl Acad Sci U S A, 107(5):2037-42.

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.

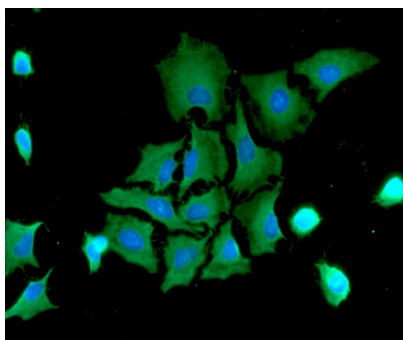
Lane 1.: HeLa cell lysate

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  $1 \times 10^6$  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).