

# Human Lactate Dehydrogenase A/LDHA antibody

Catalog Number: ATGA0180

## PRODUCT INFORMATION

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**Catalog number**

ATGA0180

**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

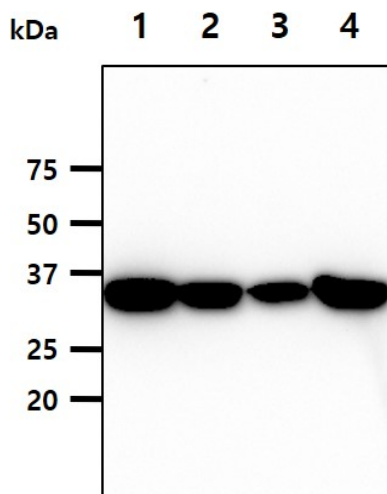
Lactate through lactate dehydrogenase A (LDHA), which is encoded by a target gene of c-Myc and hypoxia-inducible factor (HIF-1). LDHA expression is repressed by SugR in the absence of sugar. Reduction of LDHA causes bioenergetic and oxidative stress leading to cell death. LDHA (LDH-5, M-LDH, or A4), 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)



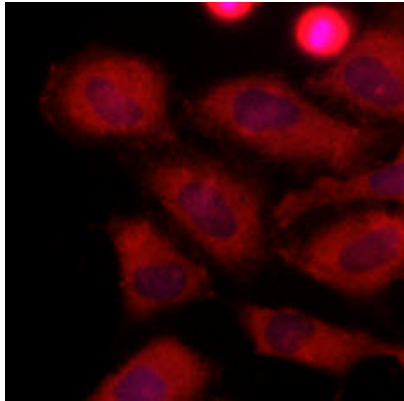
The cell lysates(40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human HSP60 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

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

### Immunocytochemistry/Immunofluorescence (ICC/IF)

## Human Lactate Dehydrogenase A/LDHA antibody

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Immunofluorescence of human HeLa cells stained with Hoechst 3342 (Blue) for nucleus staining and monoclonal anti-human LDHA antibody (1:500) with Texas Red (Red).