


Anti-Lactate Dehydrogenase antibody ab47010

★★★★★ [8 Abreviews](#) [31 References](#) [8 Images](#)

Overview

Product name	Anti-Lactate Dehydrogenase antibody
Description	Rabbit polyclonal to Lactate Dehydrogenase
Host species	Rabbit
Specificity	ab47010 cross-reacts with LDHA, B and C.
Tested applications	Suitable for: WB, IP, ICC/IF, IHC-P
Species reactivity	Reacts with: Human, Recombinant fragment Predicted to work with: Mouse, Rat, Rabbit, Chimpanzee, Zebrafish, Chinese hamster 
Immunogen	Synthetic peptide corresponding to Human Lactate Dehydrogenase aa 300 to the C-terminus conjugated to keyhole limpet haemocyanin. (Peptide available as ab47009)
Positive control	Recombinant human LDHA protein (His tag) (ab93699) can be used as a positive control in WB. This antibody gave a positive signal in the following whole cell lysates: HeLa (Human epithelial carcinoma cell line) Jurkat (Human T cell lymphoblast-like cell line) A431 (Human epithelial carcinoma cell line) HEK293 (Human embryonic kidney cell line)
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

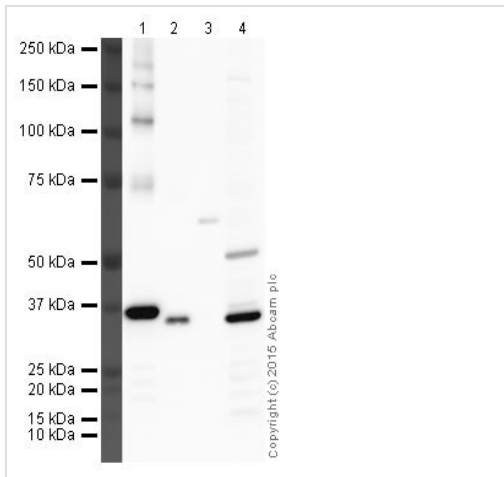
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab47010 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (5)	Use a concentration of 1 µg/ml. Detects a band of approximately 36 kDa (predicted molecular weight: 37 kDa). Can be blocked with Human Lactate Dehydrogenase peptide (ab47009) .
IP		Use a concentration of 5 µg/ml.
ICC/IF		Use a concentration of 1 µg/ml.
IHC-P	★★★★★ (2)	Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Target

Pathway	Fermentation; pyruvate fermentation to lactate; (S)-lactate from pyruvate: step 1/1.
Involvement in disease	Defects in LDHA are the cause of glycogen storage disease type 11 (GSD11) [MIM:612933]. A metabolic disorder that results in exertional myoglobinuria, pain, cramps and easy fatigue.
Sequence similarities	Belongs to the LDH/MDH superfamily. LDH family.
Post-translational modifications	ISGylated.
Cellular localization	Cytoplasm.

Images



Western blot - Anti-Lactate Dehydrogenase antibody (ab47010)

All lanes : Anti-Lactate Dehydrogenase antibody (ab47010)

Lane 1 : LDHA recombinant

Lane 2 : LDHB recombinant

Lane 3 : LDHC recombinant

Lane 4 : HeLa

Predicted band size: 37 kDa

Exposure time: 30 seconds

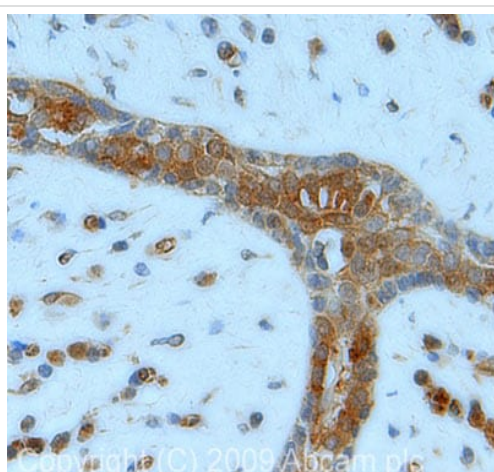
Observed bands

Lane 1 :40 kDa

Lane 2:37 kDa

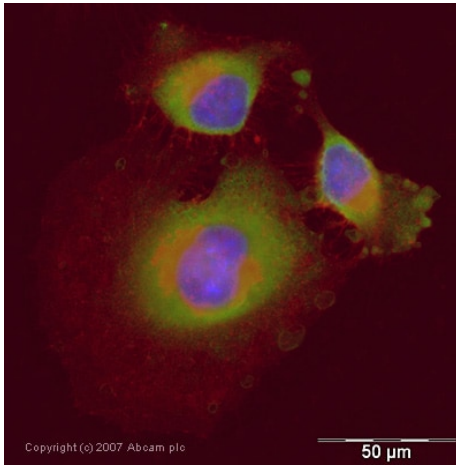
Lane 3:62 kDa

Lane 4: 37 kDa



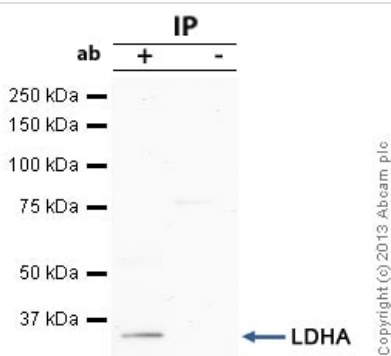
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody (ab47010)

IHC image of Lactate Dehydrogenase staining in human breast carcinoma FFPE section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab47010, 1 µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunocytochemistry/ Immunofluorescence - Anti-Lactate Dehydrogenase antibody (ab47010)

ICC/IF image of ab47010 stained human HeLa cells. The cells were PFA fixed (10 min), permeabilised in TBS-T (20 min) and incubated with the antibody (ab47010, 1μg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to quench autofluorescence and block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).



Immunoprecipitation - Anti-Lactate Dehydrogenase antibody (ab47010)

LDHA was immunoprecipitated using 0.5mg Hela whole cell extract, 5μg of Rabbit polyclonal to LDHA and 50μl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, Hela whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40μl SDS loading buffer and incubated for 10min at 70°C; 10μl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab47010.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) ([ab99697](#)).

Band: 36kDa; LDHA



Western blot - Anti-Lactate Dehydrogenase antibody (ab47010)

All lanes : LDHA antibody (ab47010) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

Lane 3 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 4 : HEK293 Human embryonic kidney cell line Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

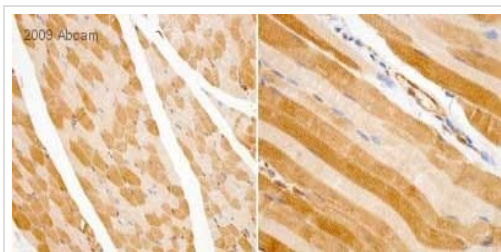
Secondary

All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 37 kDa

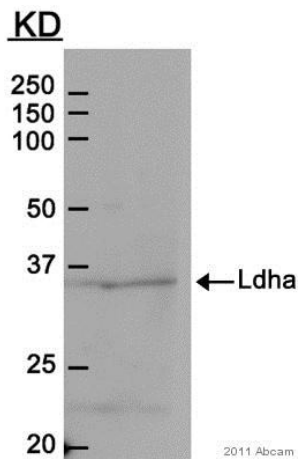
Observed band size: 36 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody (ab47010)

This image is from an anonymous abreview.

ab47010 at a 1/400 dilution staining LDHA in human skeletal muscle sections by Immunohistochemistry (formalin/PFA-fixed paraffin-embedded sections) incubated for 20 minutes at 25°C. Heat mediated antigen retrieval used, EDTA pH 9.0, 100°C for 20 minutes. Secondary used undiluted, goat anti-mouse/rabbit IgG conjugated to HRP polymer.



Western blot - Anti-Lactate Dehydrogenase antibody (ab47010)

This image is courtesy of an anonymous Abreview

Anti-Lactate Dehydrogenase antibody (ab47010) at 1/500 dilution + Zebrafish whole cell lysate at 10 µg

Secondary

HRP conjugated Goat anti-rabbit monoclonal secondary antibody at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 37 kDa

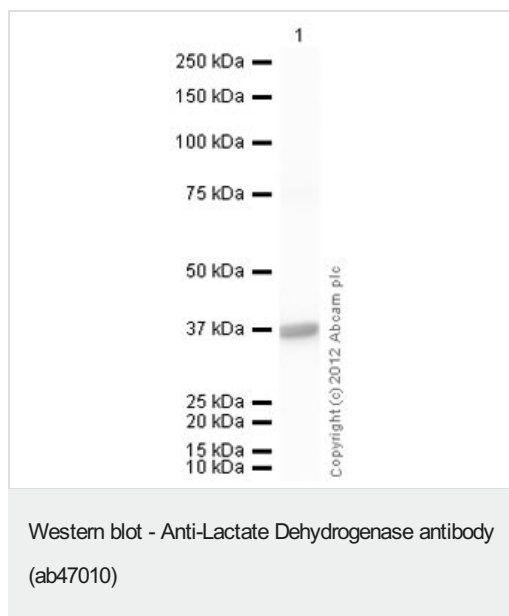
Observed band size: 36 kDa

Additional bands at: 22 kDa (possible non-specific binding)

Exposure time: 30 seconds

Blocking step: 5% Milk for 1 hour at 24°C

Primary antibody incubation for 12 hours at 4°C



Anti-Lactate Dehydrogenase antibody (ab47010) at 1 µg/ml +
Recombinant human Lactate Dehydrogenase protein (Active)
(**ab93699**) at 0.1 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at
1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 37 kDa

Exposure time: 10 seconds

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