

Anti-Lactate Dehydrogenase antibody [EP1566Y] ab52488

Recombinant RabMAb

★★★★★ 7 Abreviews 64 References 13 Images

Overview

Product name	Anti-Lactate Dehydrogenase antibody [EP1566Y]
Description	Rabbit monoclonal [EP1566Y] to Lactate Dehydrogenase
Host species	Rabbit
Specificity	This antibody reacts with Lactate dehydrogenase; LDHA (79%), LDHB (100%) and LDHC (86%).
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IP, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HEK293, human heart tissue; rat and mouse kidney tissue lysate. ICC/IF: HeLa cells. Flow Cyt (intra): Raw264.7 cells, HeLa. IP: HeLa cells. IHC-P: Mouse liver tissue, human breast carcinoma tissue, human liver carcinoma.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</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. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA</p>
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EP1566Y
Isotype	IgG

Applications

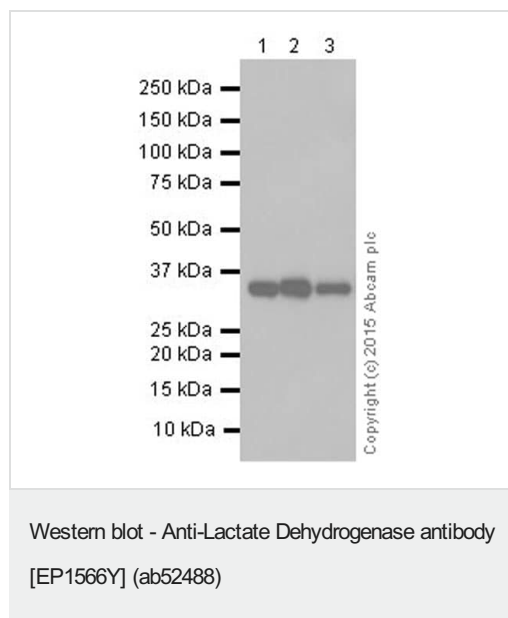
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab52488 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/50 - 1/100. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (1)	1/50 - 1/100.
WB	★★★★★ (3)	1/5000 - 1/10000. Detects a band of approximately 37 kDa (predicted molecular weight: 37 kDa).
IP		1/30 - 1/100.
IHC-P	★★★★★ (2)	1/2000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols .

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



All lanes : Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488) at 1/5000 dilution

Lane 1 : HeLa (human cervix adenocarcinoma) whole cell lysate

Lane 2 : HEK293 (human embryonic kidney) whole cell lysate

Lane 3 : Human heart tissue

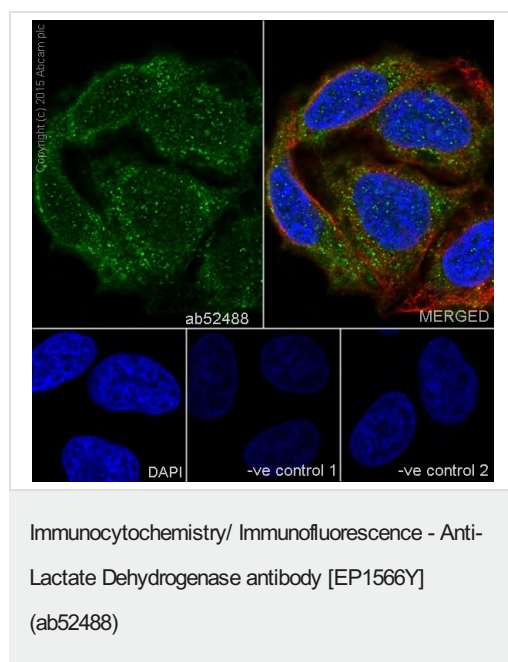
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 37 kDa

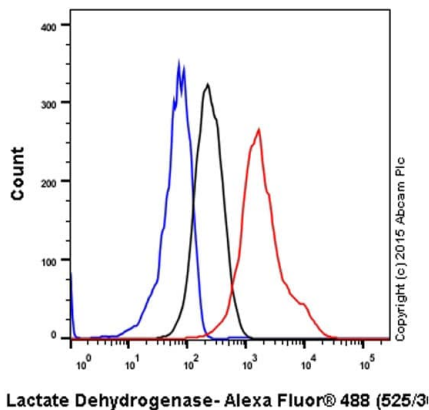
Additional bands at: 36 kDa. We are unsure as to the identity of these extra bands.



ab52488 staining Lactate Dehydrogenase in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody at a dilution of 1/1000. **ab7291** and **ab150120** were used as counterstains for primary antibody ab52488 and secondary antibody **ab150077** respectively and DAPI was used as a nuclear counterstain.

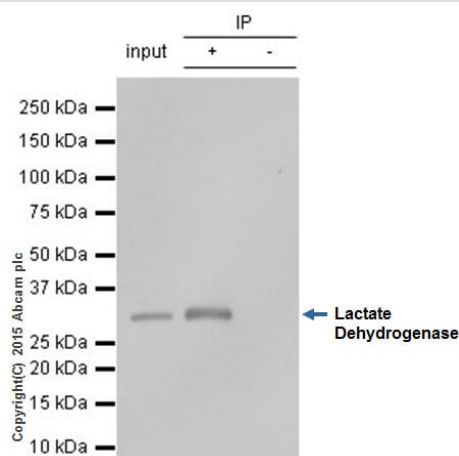
Negative control 1: Rabbit primary antibody and anti-mouse secondary antibody (**ab150120**)

Negative control 2: Mouse primary antibody (**ab7291**) and anti-rabbit secondary antibody (**ab150077**)



Intracellular Flow Cytometry analysis of Raw264.7 (mouse abelson murine leukemia virus-induced tumor) whole cell lysate labelling Lactate Dehydrogenase with purified ab52488 at 1/190 (red). Cells were fixed with 4% paraformaldehyde. Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.

Flow Cytometry (Intracellular) - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)



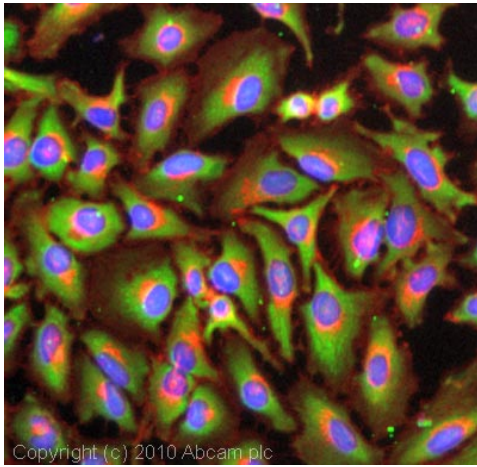
ab52488 immunoprecipitating Lactate Dehydrogenase. 10µg of cell lysate was incubated with primary antibody at a dilution of 1/30 and VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at a dilution of 1/10000.

Lane 1: HeLa (human cervix adenocarcinoma) whole cell lysate (10ug)

Lane 2: HeLa (human cervix adenocarcinoma) whole cell lysate

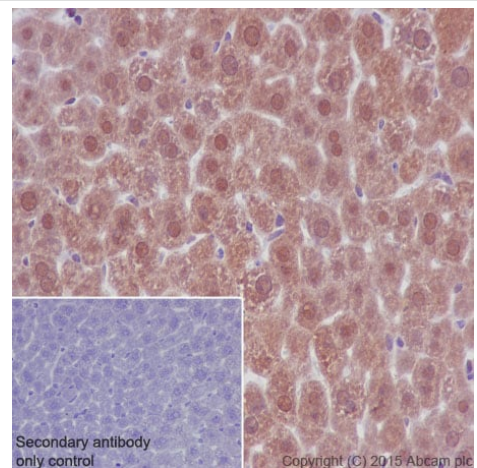
Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab52488 in HeLa (human cervix adenocarcinoma) whole cell lysate

Immunoprecipitation - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)



Immunocytochemistry/ Immunofluorescence - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)

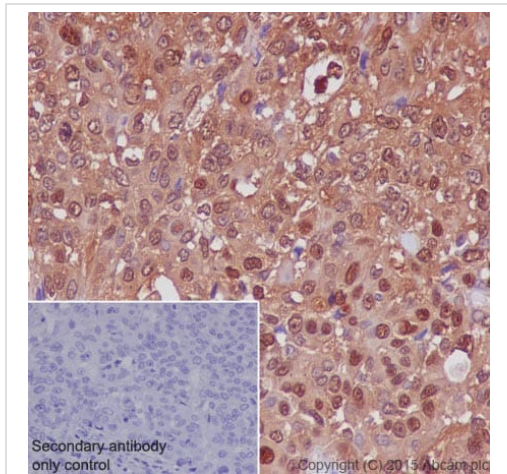
ICC/IF image of unpurified ab52488 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab52488, 1µg/ml) overnight at +4°C. 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) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)

ab52488 staining Lactate Dehydrogenase in mouse liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/2000. A goat anti-rabbit IgG H&L (HRP) [ab97051](#) was used as the secondary antibody at a dilution of 1/500.

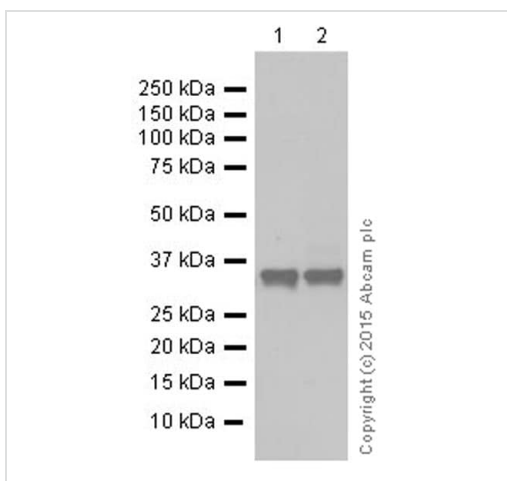
Negative control 1: PBS in place of primary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)

ab52488 staining Lactate Dehydrogenase in human breast carcinoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/2000. **ab97051** was used as the secondary antibody.

Negative control 1: PBS in place of primary antibody.



Western blot - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)

All lanes : Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488) at 1/20000 dilution (purified)

Lane 1 : Mouse kidney tissue lysate

Lane 2 : Rat kidney tissue lysate

Lysates/proteins at 10 µg per lane.

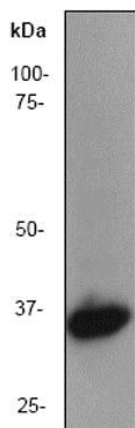
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 37 kDa

Observed band size: 36 kDa

Blocking and diluting buffer 5% NFDM/TBST



Western blot - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)

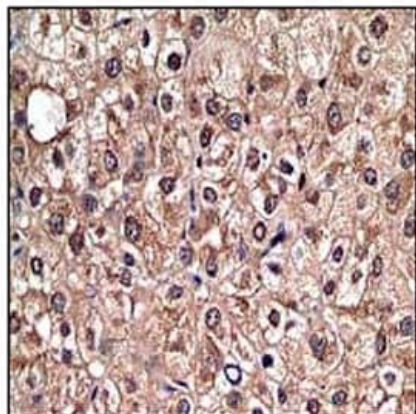
Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488) at 1/100000 dilution (unpurified) + Hela cell lysate at 10 μ g

Secondary

Goat anti-rabbit HRP labeled at 1/2000 dilution

Predicted band size: 37 kDa

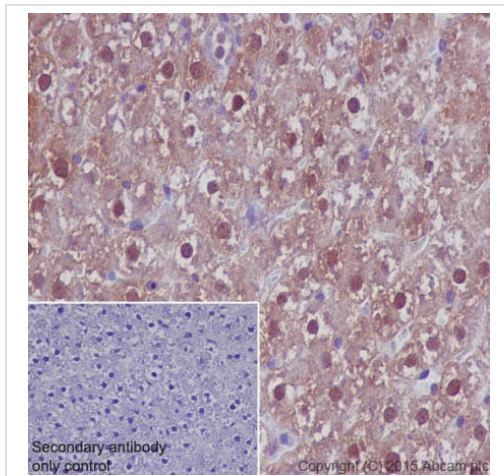
Observed band size: 37 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)

Immunohistochemical analysis of paraffin-embedded human liver carcinoma using unpurified ab52488 at a 1/50 dilution.

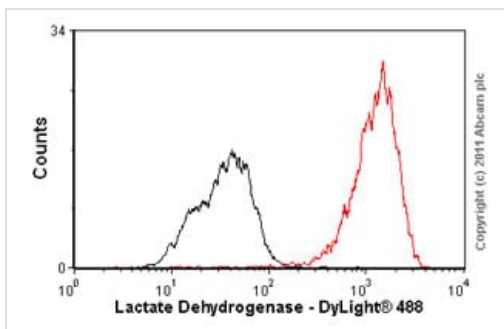
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)

ab52488 staining Lactate Dehydrogenase in mouse liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/2000. A goat anti-rabbit IgG H&L (HRP) **ab97051** was used as the secondary antibody at a dilution of 1/500.

Negative control 1: PBS in place of primary antibody.



Flow Cytometry (Intracellular) - Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488)

Overlay histogram showing HeLa cells stained with unpurified ab52488 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab52488, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a slightly decreased signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Lactate Dehydrogenase antibody [EP1566Y]
(ab52488)

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