

Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free ab219591

Recombinant RabMAb

★★★★★ [1 Abreviews](#) [10 Images](#)

Overview

Product name	Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free
Description	Rabbit monoclonal [EP1566Y] to Lactate Dehydrogenase - BSA and Azide free
Host species	Rabbit
Specificity	This antibody reacts with Lactate dehydrogenase; LDHA (79%), LDHB (100%) and LDHC (86%).
Tested applications	Suitable for: Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human liver carcinoma tissue and Hela cell lysate
General notes	ab219591 is the carrier-free version of ab52488 .

Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1566Y
Isotype	IgG

Applications

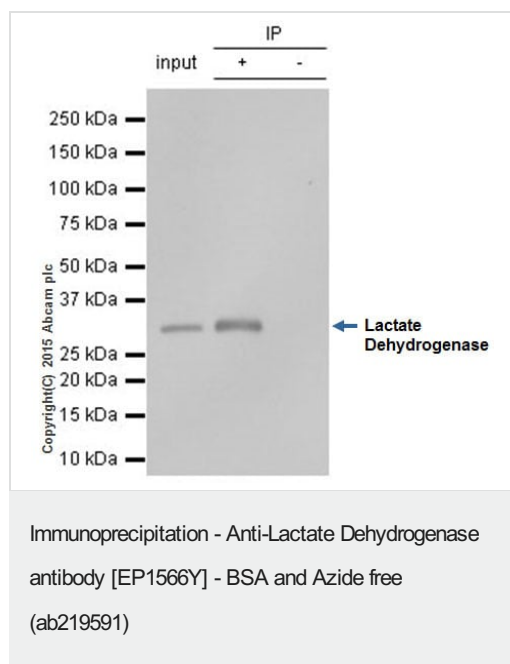
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab219591 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration. ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Detects a band of approximately 37 kDa (predicted molecular weight: 37 kDa).
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> .
ICC/IF		Use at an assay dependent concentration.

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



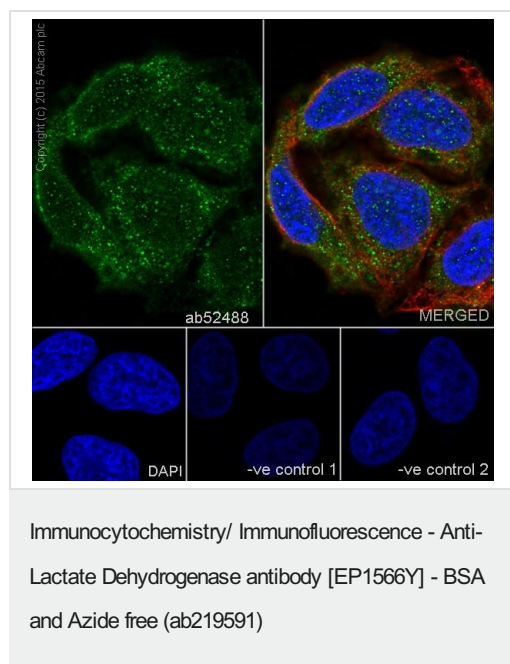
ab52488 immunoprecipitating Lactate Dehydrogenase. 10µg of cell lysate was incubated with primary antibody at a dilution of 1/30 and VeriBlot for IP Detection Reagent (HRP) (**ab131366**) at a dilution of 1/10000.

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).



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

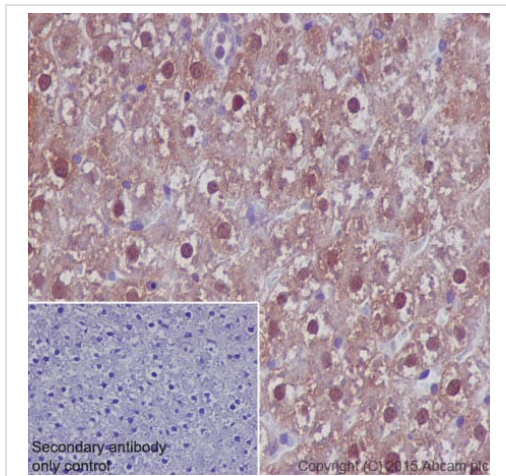
ab52488 and secondary antibody **ab150077** respectively and

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**)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).

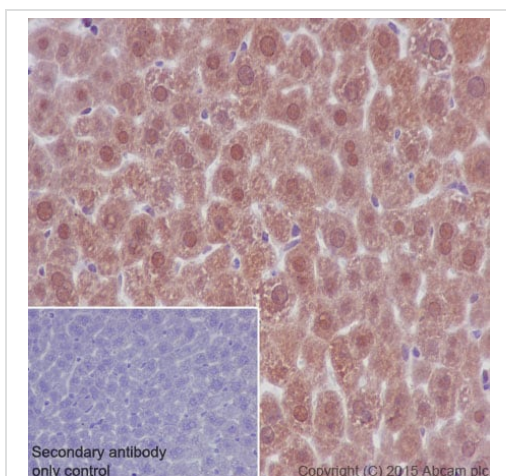


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free (ab219591)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).

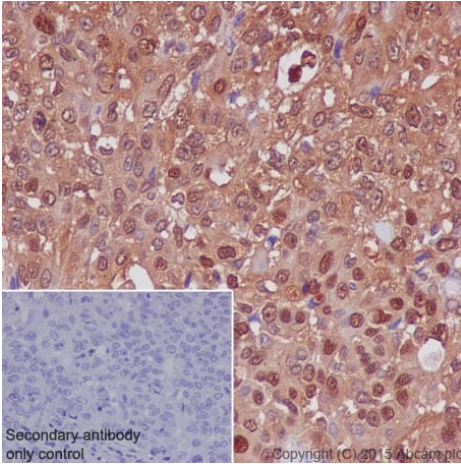


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free (ab219591)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).

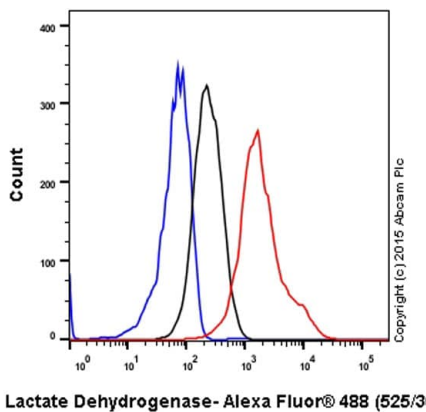


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free (ab219591)

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.

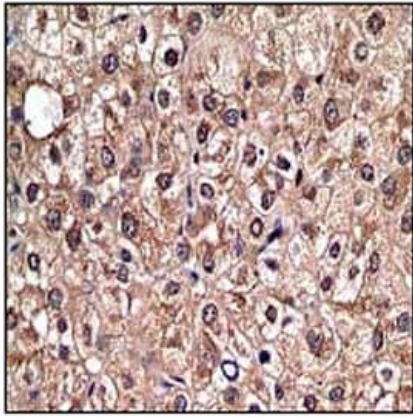
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).



Flow Cytometry (Intracellular) - Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free (ab219591)

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.

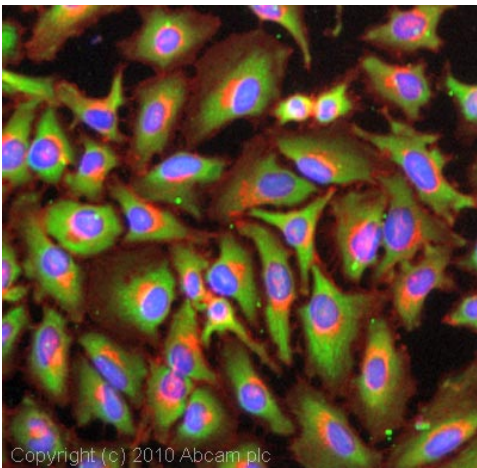
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free (ab219591)

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

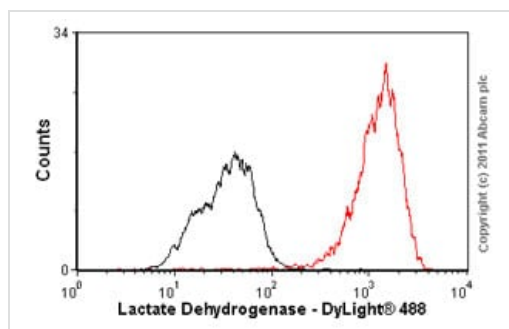
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).



Immunocytochemistry/ Immunofluorescence - Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free (ab219591)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).

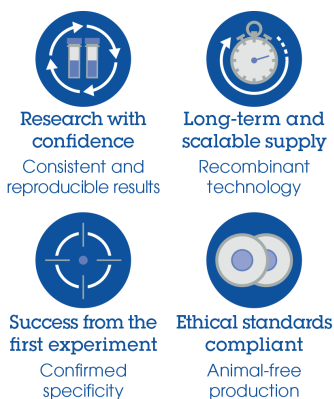


Flow Cytometry (Intracellular) - Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free (ab219591)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab52488**).

Why choose a recombinant antibody?



Anti-Lactate Dehydrogenase antibody [EP1566Y] - BSA and Azide free (ab219591)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Promise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors