abcam

Product datasheet

# Anti-Lactate Dehydrogenase antibody [EP1566Y] ab52488

リコンビナント RabMAb

7 Abreviews 64 References 画像数 13

## 製品の概要

| | |
|---|---|
| **製品名** | Anti-Lactate Dehydrogenase antibody [EP1566Y] |
| **製品の詳細** | Rabbit monoclonal [EP1566Y] to Lactate Dehydrogenase |
| **由来種** | Rabbit |
| **特異性** | This antibody reacts with Lactate dehydrogenase; LDHA (79%), LDHB (100%) and LDHC (86%). |
| **アプリケーション** | **適用あり:** Flow Cyt (Intra), ICC/IF, WB, IP, IHC-P |
| **種交差性** | **交差種:** Mouse, Rat, Human |
| **免疫原** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **ポジティブ・コントロール** | 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. |
| **特記事項** | This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. |

## 製品の特性

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| **製品の状態** | Liquid |
| **保存方法** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. |
| **バッファー** | pH: 7.20<br>Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA |
| **精製度** | Protein A purified |
| **ポリ/モノ** | モノクローナル |

| | |
|---|---|
| **クローン名** | EP1566Y |
| **アイソタイプ** | IgG |

## アプリケーション

**The Abpromise guarantee** **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab52488の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

| アプリケーション | Abreviews | 特記事項 |
|---|---|---|
| **Flow Cyt (Intra)** | | 1/50 - 1/100.<br>**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.<br>See **IHC antigen retrieval protocols**. |

## ターゲット情報

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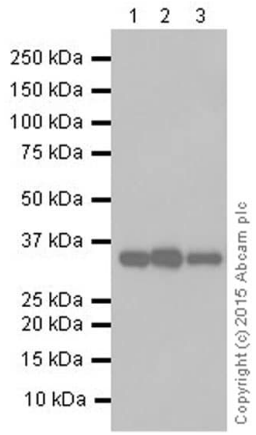
|---|---|
| **パスウェイ** | Fermentation; pyruvate fermentation to lactate; (S)-lactate from pyruvate: step 1/1. |
| **関連疾患** | Defects in LDHA are the cause of glycogen storage disease type 11 (GSD11) [MIM:612933]. A metabolic disorder that results in exertional myoglobinuria, pain, cramps and easy fatigue. |
| **配列類似性** | Belongs to the LDH/MDH superfamily. LDH family. |
| **翻訳後修飾** | ISGylated. |
| **細胞内局在** | Cytoplasm. |

## 画像




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

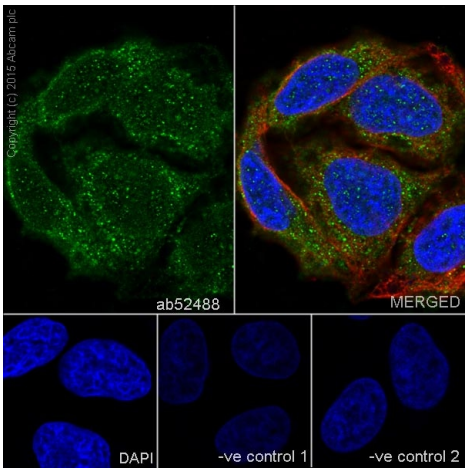
**All lanes :** Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488) at 1/5000 dilution

**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

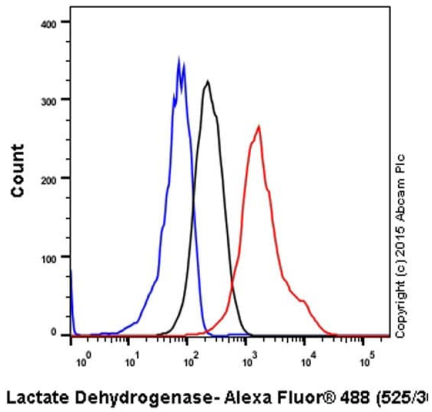
**Predicted band size:** 37 kDa
**Additional bands at:** 36 kDa. We are unsure as to the identity of these extra bands.




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

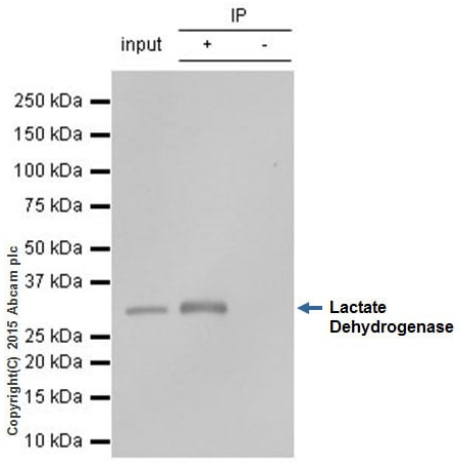
ab52488 staining Lactate Dehydrogenase in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti rabbit 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**)




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

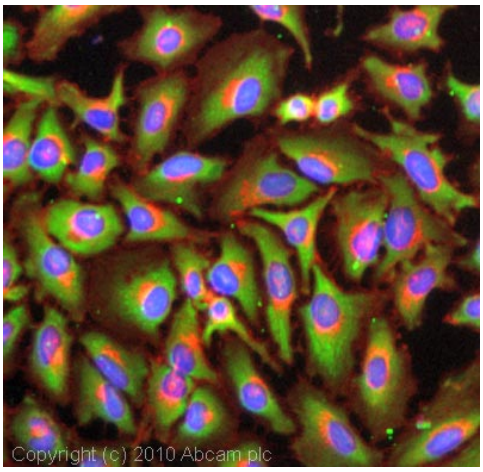
Intracellular Flow Cytometry analysis of Raw264.7 (mouse abelson murine leukemia virus-induced tumor) whole cell lysate labelling Lactate Dehydrogenase with purified ab52488 at 1/190 (red). Cells were fixed with 4% paraformaldehyde. Alexa Fluorr® 488-conjugated goat anti-rabbit IgG (1/500) was used as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




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

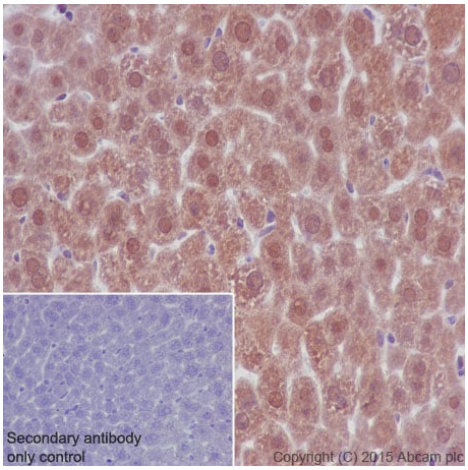
ab52488 immunoprecipitating Lactate Dehydrogenase. 10µg of cell lysate was incubated with primary antibody at a dilution of 1/30 and VeriBlot for IP Detection Reagent (HRP) (**ab131366**) at a dilution of 1/10000.

**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




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

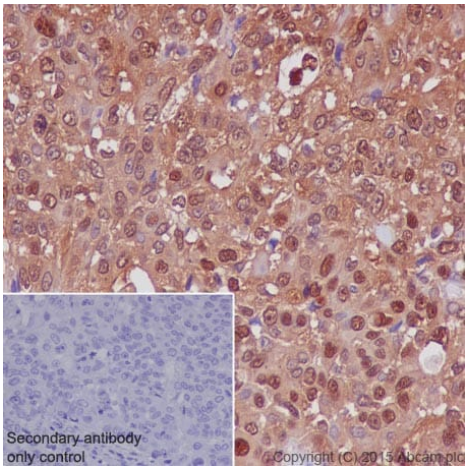
ICC/IF image of unpurified ab52488 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with 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.

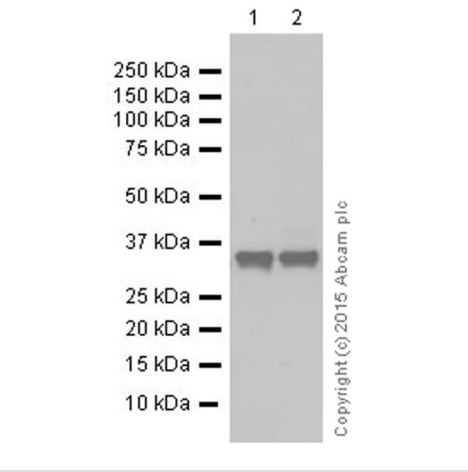
**Negative control 1:** PBS in place of primary antibody.




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)

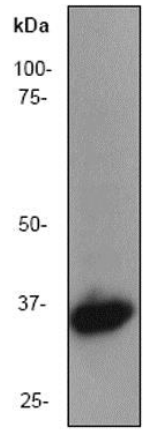
**Lane 1 :** Mouse kidney tissue lysate
**Lane 2 :** Rat kidney tissue lysate

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)

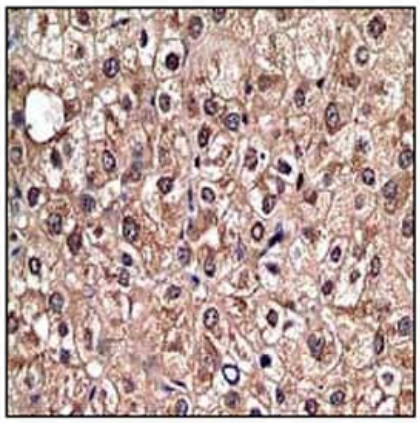
Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab52488) at 1/100000 dilution (unpurified) + Hela cell lysate at 10 µg

**Secondary**

Goat anti-rabbit HRP labeled at 1/2000 dilution

**Predicted band size:** 37 kDa

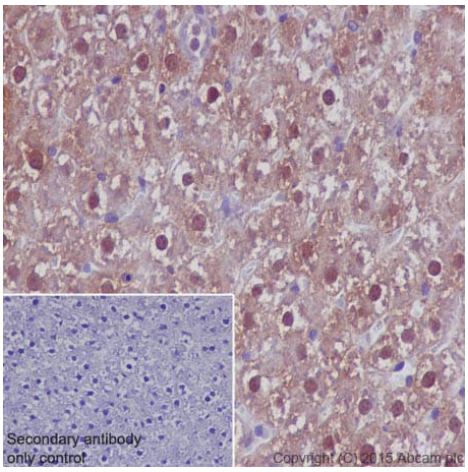
**Observed band size:** 37 kDa



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.

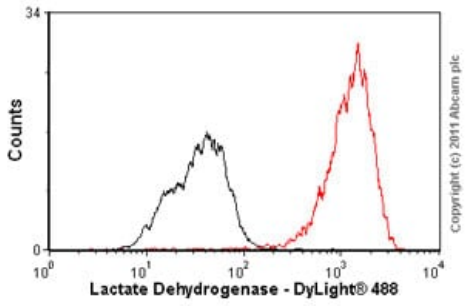
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.




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

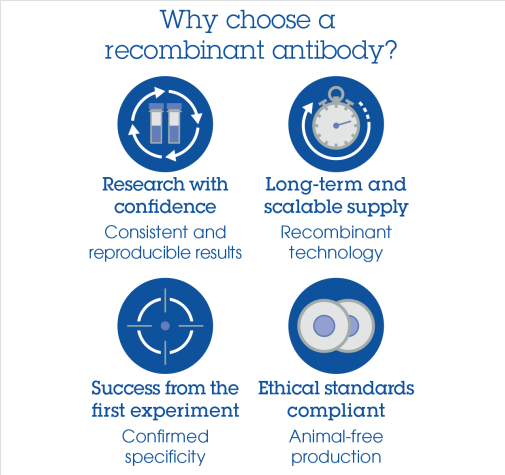
ab52488 staining Lactate Dehydrogenase in mouse liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody 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/1x$10^6$ 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.




Anti-Lactate Dehydrogenase antibody [EP1566Y]

(ab52488)

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

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