abcam

ab202652

Alexa Fluor® 488 Anti-Lactate Dehydrogenase antibody [EP1566Y]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1566Y
Purification technique	Affinity purification Protein A
Specificity	This antibody reacts with Lactate dehydrogenase; LDHA (79%), LDHB (100%) and LDHC (86%) based on the sequence homology with the immunogen.
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/1250
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information LDHB

Function Interconverts simultaneously and stereospecifically pyruvate and lactate with concomitant interconversion of NADH and NAD(+).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

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

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Lactate dehydrogenase (LDH) is an enzyme that catalyzes the interconversion of pyruvate and lactate along with the conversion of NADH to NAD+. LDH is known by other names such as lactic acid dehydrogenase and LDH-5. The enzyme has a molecular weight of approximately 36 kDa. LDH exists in almost all tissues having multiple isoforms that are expressed differently depending on the tissue type. It shows high expression in muscle tissue liver and heart indicating its extensive role in energy metabolism.
Biological function summary	Lactate dehydrogenase plays a critical role in anaerobic glycolysis. The enzyme helps in regenerating NAD+ from NADH allowing glycolysis to continue in the

	absence of oxygen. LDH is not a part of any larger protein complex working independently to fulfill its function in the glycolytic pathway. It serves in rapid energy production especially under hypoxic or exertional conditions where oxygen supply is limited.
Pathways	LDH is significantly involved in the glycolysis and gluconeogenesis pathways. Within glycolysis LDH helps facilitate the conversion of pyruvate to lactate during anaerobic conditions a step important for ATP production when oxygen is scarce. The enzyme is tied closely to phosphofructokinase-1 (PFK-1) in glycolysis given that both enzymes are central to maintaining the glycolytic flow. In gluconeogenesis though functionally reversed from its role in glycolysis LDH helps to manage lactate removal an important step for glucose synthesis from non-carbohydrate sources.
Associated diseases and disorders	Lactate dehydrogenase levels often act as a biomarker for tissue damage or certain cancers as its release into the bloodstream signals cellular injury or death. Elevated LDH levels are associated with conditions like myocardial infarction and certain forms of anemia. In cancer such as lymphoma or leukemia LDH correlates with the progression of the disease and acts as a prognostic marker. LDH's connection to these conditions often leads to insights into disease severity and progression due to its association with proteins like p53 and HIF-1 which play roles in cellular metabolism and hypoxia response.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

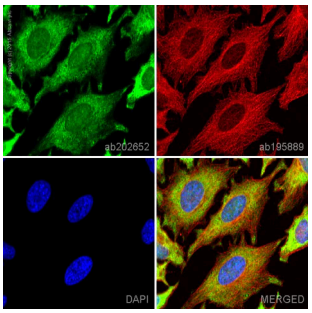
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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1 product image



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Lactate Dehydrogenase antibody [EP1566Y] (ab202652)

Lactate Dehydrogenase Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Lactate Dehydrogenase antibody

ab202652 staining Lactate Dehydrogenase in HeLa cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab202652 at 1/1250 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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