

Datasheet for 100-1173**Lactate Dehydrogenase Antibody****Overview**

Description:	Anti-Lactate Dehydrogenase (Rabbit Muscle) (GOAT) Antibody - 100-1173
Item No.:	100-1173
Size:	2 mL
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	Lactate dehydrogenase is also known as L-lactate dehydrogenase A chain, LDH-A, LDH muscle subunit and LDH-M. Two isozymes of LDH occur in mammals, LDH-M and LDH-H which come together to form a homotetramer of 36 kDa subunits. Every LDH molecule consists of four subunits, where each subunit is either H each M (based on their electrophoretic properties.) There are, therefore, five LDH isotypes: LDH-1 (4H) - in the heart, LDH-2 (3H1M) - in the reticuloendothelial system, LDH-3 (2H2M) - in the lungs, LDH-4 (1H3M) - in the kidneys and LDH-5 (4M) - in the liver and striated muscle. Usually LDH-2 is the predominant form in the serum. An LDH-1 level higher than the LDH-2 level (a "flipped pattern") suggests myocardial infarction (damage to heart tissues releases heart LDH, which is rich in LDH-1, into the bloodstream). In general, LDH is often used as a marker of tissue breakdown. LDH shows a cytoplasmic localization.
Synonyms:	goat anti-Lactate Dehydrogenase Antibody, L-lactate dehydrogenase A chain, LDH-A, LDH muscle subunit, LDH-M
Host Species:	Goat
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	LDHA
Reactivity:	Human

Immunogen Type:	Native Protein
Immunogen:	This antibody was prepared from whole goat serum produced by repeated immunizations with a full length lactate dehydrogenase protein isolated from rabbit muscle.
Purity/Specificity:	This product was prepared from monospecific antiserum by delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-goat serum, purified and partially purified Lactate Dehydrogenase [Rabbit Muscle]. BLAST analysis was used to determine that cross reactivity is suggested for both muscle and heart isoforms (LDH-A and LDH-B) from most mammalian species.
Relevant Links:	• UniProtKB - P13491 • NCBI - 126050 • GeneID - 100009107

Application Details

Tested Applications:	ELISA
Suggested Applications:	WB (Based on references)
Application Note:	This antibody has been tested in ELISA and suitable for western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 36 kDa in size corresponding to LDH western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:4,000 - 1:20,000
IP:	1:100
WB:	1:500 - 1:2,000

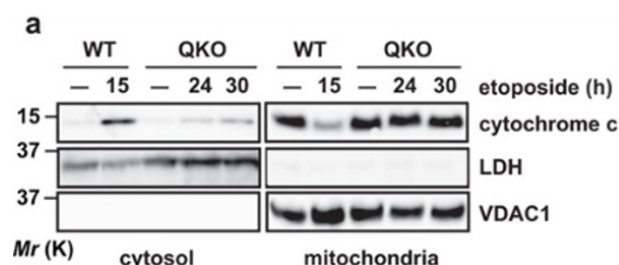
Formulation

Physical State:	Lyophilized
Concentration:	82 mg/mL by Refractometry
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Reconstitution Volume:	2.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

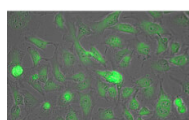


Western Blot

DNA damage activates BAX and BAK-dependent mitochondrial apoptosis in transformed Bid-/-Bim-/-Puma-/-Noxa-/- QKO mouse embryonic fibroblasts. a.) SV40-transformed wild-type or Bid-/-Bim-/-Puma-/-Noxa-/- QKO MEFs, untreated or treated with etoposide for the indicated times, were subjected to subcellular fractionation. Cytosolic and mitochondrial fractions were analyzed by anti-cytochrome c, anti-LDH (p/n 100-1173) and anti-VDAC1 immunoblots. LDH and VDAC1 serve as cytosolic and mitochondrial controls, respectively. Fig 4. PMID: 26344567.

Immunofluorescence Microscopy

Immunofluorescence Microscopy of Biotin conjugated Anti-Lactate Dehydrogenase Antibody. Tissue: HeLa cells. Fixation: fixed for 5 min in 1:1 MeTOH:Acetone, blocked with MB-071 (preservative free) for 15 min. Antigen retrieval: not required. Primary antibody: Lactate Dehydrogenase antibody at 1:200 for 1 h at RT. Secondary antibody: DyLight 488 conjugated Streptavidin antibody at 1:10,000 for 30 min at RT. Staining: Lactate Dehydrogenase as green fluorescent signal.

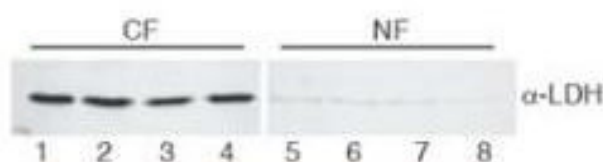


Western Blot

Western Blot of Goat Anti-Lactate Dehydrogenase antibody.

Lane 1-4: HeLa cell extracts cytoplasmic fraction (CF). Lane 5-8: HeLa cell extracts nuclear fraction (NF). Load: 30 µg per lane. Primary antibody: LDH antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO/TBST overnight at 4°C. Predicted/Observed size:

36.6 kDa, 36 kDa for LDH. Other band(s): None.



References

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- Mayorga M et al. Bcl-2 is a key factor for cardiac fibroblast resistance to programmed cell death. *J Biol Chem.* (2004)

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