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Datasheet for 200-1173S

Lactate Dehydrogenase Antibody

Overview

Description:	Anti-Lactate Dehydrogenase (Rabbit Muscle) (GOAT) Antibody - 200-1173S
Item No.:	200-1173S
Size:	25 µL
Applications:	ELISA, IF, WB, Other
Reactivity:	Human, Rabbit
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 or 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). LDH complex works to prevent muscle failure and fatigue. LDH can be measured when released during tissue breakdown. LDH appears normally throughout the body, and LDH levels rise with many cancers, so it can be used as a tumor marker but not as a cancer identifier. Anti-Lactate Dehydrogenase Antibody is useful for researcher interested in cancer and metabolism research.
Synonyms:	goat anti-Lactate Dehydrogenase Antibody, L-lactate dehydrogenase A chain, LDH-A, LDH muscle subunit, LDH-M
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	LDHA

Reactivity:	Human, Rabbit
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:	Anti-LACTATE DEHYDROGENASE is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum as well as 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, IF, WB
Suggested Applications:	Other (Based on references)
Application Note:	LACTATE DEHYDROGENASE antibody is suitable for use in ELISA, western blot, and immunofluorescence. 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:	1:2,000 - 1:10,000
IF:	1:200
IP:	1:100
WB:	1:1,000 - 1:5,000

Formulation

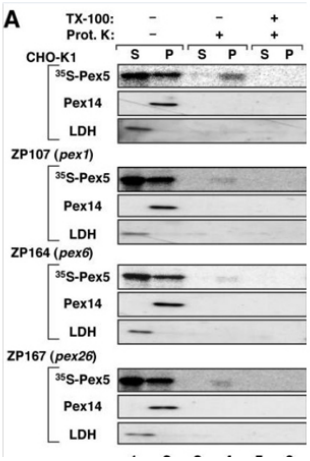
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

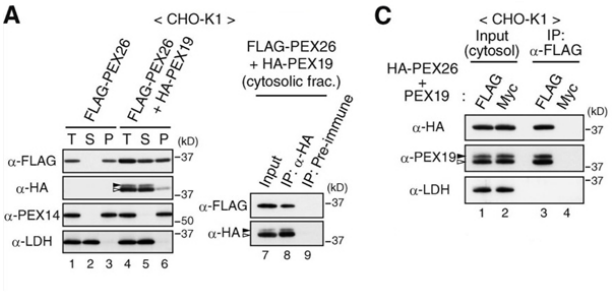
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



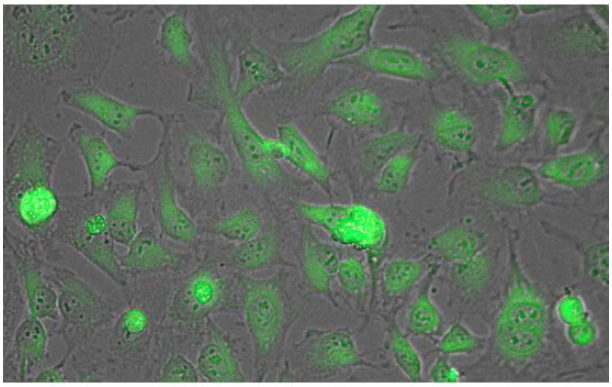
Western Blot
Import of Pex5 into peroxisomal ghosts in pex mutant cells. (A) An in vitro Pex5 import assay was performed using several pex mutants defective in matrix protein import. Cell-free synthesized 35S-Pex5 was incubated with PNS from the CHO pex1 mutant ZP107, pex6 ZP164, or pex26 ZP167 in the presence of 1 mM ATP plus ARS. After incubation, the reaction mixtures were mock treated (lanes 1 and 2) or treated with 90 µg/ml of proteinase K for 30 min at 0°C (lanes 3 to 6) in the absence (–) or presence (+) of 1% Triton X-100 and were separated to organelle (P) and cytosolic (S) fractions by centrifugation. 35S-Pex5 was detected by a Fujix FLA5000 autoimaging analyzer. Endogenous Pex14 and LDH were detected with respective antibodies. Fig 3.
PMID: 16314507



Western Blot

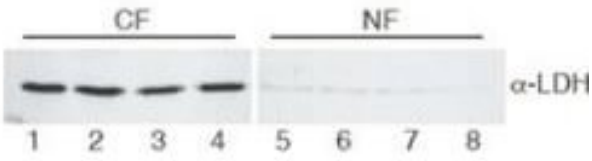
PEX19 forms a soluble complex with PEX26 in the cytosol and maintains its import-competent state.
(A, left) CHO-K1 cells transiently transfected with FLAG-PEX26 and either empty vector (lanes 1–3) or HA-PEX19 (lanes 4–6) were fractionated into post-nuclear supernatant (T, total), cytosolic (S, supernatant), and organelle (P, pellet) fractions. Equal aliquots of the respective fractions were analyzed by SDS-PAGE and immunoblotting using the indicated antibodies. Lactate dehydrogenase (LDH) and PEX14, a PMP, are markers for supernatant and pellet fractions, respectively. (right) Supernatant fraction obtained from CHO-K1 cells co-expressing FLAG-PEX26 and HA-PEX19 was subjected to immunoprecipitation with the anti-HA antibody (lane 8) or pre-immune serum (lane 9). Immunoprecipitates and input (10%; lane 7) were analyzed by immunoblotting using the indicated antibodies.

(C) Cytosolic fractions of CHO-K1 cells co-expressing HA-PEX26 and either FLAG-PEX19 (lanes 1 and 3) or Myc-PEX19 (lanes 2 and 4) were subjected to immunoprecipitation with anti-FLAG agarose beads. Immunoprecipitates were eluted with FLAG peptides and analyzed by immunoblotting using the indicated antibodies. Input (10%) was loaded in lanes 1 and 2.
Fig 1. PMID: 23460677



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 Biotin Conjugated 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.

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