

LDH-D (H-195): sc-134673

BACKGROUND

The lactate dehydrogenase family (LDH) consists of three members, designated LDH-A, LDH-B and LDH-C, all of which work in concert to catalyze the final step of anaerobic glycolysis, namely the conversion of L-lactate and NAD⁺ to pyruvate and NADH. Each family member displays a specific tissue distribution pattern, with LDH-A present in muscle and LDH-B present in heart, while LDH-C expression is confined to testes and sperm. A fourth possible member, termed LDH-D (lactate dehydrogenase D), probable D-lactate dehydrogenase or DLD, is a 507 amino acid mitochondrial protein belonging to the D-isomer specific 2-hydroxyacid dehydrogenase family. Existing as two alternatively spliced isoforms, LDH-D is moderately expressed in liver and heart with lower levels found in kidney and skeletal muscle.

CHROMOSOMAL LOCATION

Genetic locus: LDHD (human) mapping to 16q23.1; Ldhd (mouse) mapping to 8 E1.

SOURCE

LDH-D (H-195) is a rabbit polyclonal antibody raised against amino acids 1-195 mapping at the N-terminus of LDH-D of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

LDH-D (H-195) is recommended for detection of LDH-D of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LDH-D (H-195) is also recommended for detection of LDH-D in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for LDH-D siRNA (h): sc-93282, LDH-D siRNA (m): sc-146691, LDH-D shRNA Plasmid (h): sc-93282-SH, LDH-D shRNA Plasmid (m): sc-146691-SH, LDH-D shRNA (h) Lentiviral Particles: sc-93282-V and LDH-D shRNA (m) Lentiviral Particles: sc-146691-V.

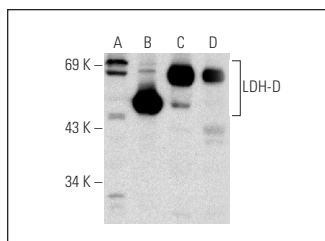
Molecular Weight of LDH-D: 55 kDa.

Positive Controls: LDH-D (m2): 293T Lysate: sc-121318, human heart extract: sc-363763 or mouse heart extract: sc-2254.

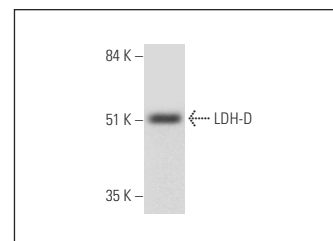
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



LDH-D (H-195): sc-134673. Western blot analysis of LDH-D expression in non-transfected: sc-117752 (A) and mouse LDH-D transfected: sc-121318 (B) 293T whole cell lysates and mouse heart (C) and mouse skeletal muscle (D) tissue extracts.



LDH-D (H-195): sc-134673. Western blot analysis of LDH-D expression in human heart tissue extract.

SELECT PRODUCT CITATIONS

- de Bari, L., et al. 2013. Prostate cancer cells metabolize D-lactate inside mitochondria via a D-lactate dehydrogenase which is more active and highly expressed than in normal cells. FEBS Lett. 587: 467-473.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **LDH-D (H-10): sc-374128** or **LDH-D (G-8): sc-374127**, our highly recommended monoclonal alternatives to LDH-D (H-195).