

LDH-B (Q-21): sc-133731

BACKGROUND

The lactate dehydrogenase family (LDH) catalyzes the final step of anaerobic glycolysis, the conversion of L-lactate and NAD to pyruvate and NADH. The LDH family consists of three members, LDH-A, LDH-B and LDH-C, all of which form tetramers consisting of four subunits. However, each family member displays a specific tissue distribution pattern with LDH-A and LDH-B predominant in several tissues, specifically LDH-A in muscle and LDH-B in heart, while LDH-C expression is confined to the testis and sperm. LDHs function as powerful markers for germ cell tumors. The genes encoding human LDH-A and LDH-C map to chromosome 11, while the human LDH-B gene maps to chromosome 12. Deficiency in the LDH-A gene is linked to exertional myoglobinuria.

REFERENCES

1. Ikezawa, Z., et al. 1984. Manipulation of anti-LDH-B response by T suppressor factors. *J. Immunol.* 132: 1605-1607.
2. Edwards, Y.H., et al. 1987. Locus determining the human sperm-specific lactate dehydrogenase, LDH-C, is syntenic with LDH-A. *Dev. Genet.* 8: 219-232.

CHROMOSOMAL LOCATION

Genetic locus: LDHB (human) mapping to 12p12.1; Ldhb (mouse) mapping to 6 G2.

SOURCE

LDH-B (Q-21) is an affinity purified rabbit polyclonal antibody raised against a C-terminal region of LDH-B of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

LDH-B (Q-21) is recommended for detection of LDH-B 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LDH-B (Q-21) is also recommended for detection of LDH-B in additional species, including equine, bovine and canine.

Suitable for use as control antibody for LDH-B siRNA (h): sc-45899, LDH-B siRNA (m): sc-45902, LDH-B shRNA Plasmid (h): sc-45899-SH, LDH-B shRNA Plasmid (m): sc-45902-SH, LDH-B shRNA (h) Lentiviral Particles: sc-45899-V and LDH-B shRNA (m) Lentiviral Particles: sc-45902-V.

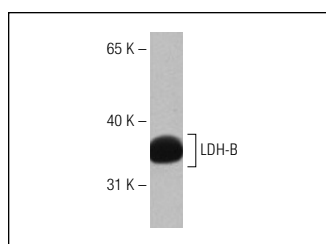
Molecular Weight of LDH-B: 35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or human fetal muscle tissue extract.

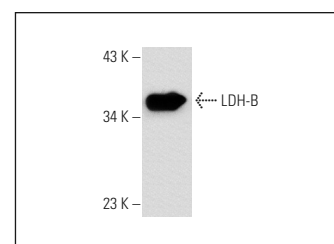
RECOMMENDED SECONDARY REAGENTS

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).

DATA



LDH-B (Q-21): sc-133731. Western blot analysis of LDH-B expression in human fetal muscle tissue extract.



LDH-B (Q-21): sc-133731. Western blot analysis of LDH-B expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Vergara, D., et al. 2013. Comparative proteome profiling of breast tumor cell lines by gel electrophoresis and mass spectrometry reveals an epithelial mesenchymal transition associated protein signature. *Mol. Biosyst.* 9: 1127-1138.
2. Simeone, P., et al. 2014. A unique four-hub protein cluster associates to glioblastoma progression. *PLoS ONE* 9: e103030.
3. Vergara, D., et al. 2015. Comparative proteomic profiling of Hodgkin lymphoma cell lines. *Mol. Biosyst.* 12: 219-232.

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.

PROTOCOLS

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



Try **LDH-B (431.1): sc-100775**, our highly recommended monoclonal alternative to LDH-B (Q-21).