

LDH-A (N-14): sc-27230

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 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.

CHROMOSOMAL LOCATION

Genetic locus: LDHA (human) mapping to 11p15.1; Ldha (mouse) mapping to 7 B4.

SOURCE

LDH-A (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of LDH-A 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.

Blocking peptide available for competition studies, sc-27230 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LDH-A (N-14) is recommended for detection of LDH-A 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); non cross-reactive with LDH-B and LDH-C.

Suitable for use as control antibody for LDH-A siRNA (h): sc-43893, LDH-A siRNA (m): sc-45898, LDH-A shRNA Plasmid (h): sc-43893-SH, LDH-A shRNA Plasmid (m): sc-45898-SH, LDH-A shRNA (h) Lentiviral Particles: sc-43893-V and LDH-A shRNA (m) Lentiviral Particles: sc-45898-V.

Molecular Weight of LDH-A: 35 kDa.

Positive Controls: LDH-A (m): 293T Lysate: sc-127087, Y79 cell lysate: sc-2240 or SK-N-SH cell lysate: sc-2410.

STORAGE

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

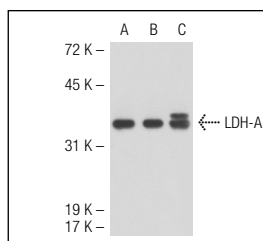
PROTOCOLS

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

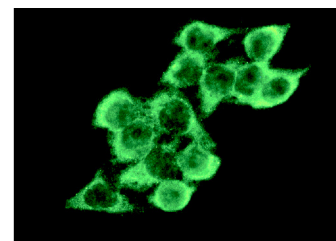
RESEARCH USE

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

DATA



LDH-A (N-14): sc-27230. Western blot analysis of LDH-A expression in non-transfected 293T: sc-117752 (A), mouse LDH-A transfected 293T: sc-127087 (B) and SK-N-SH (C) whole cell lysates.



LDH-A (N-14): sc-27230. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Lee, B.H., et al. 2007. Biological cross-talk between WNK1 and the transforming growth factor β -Smad signaling pathway. *J. Biol. Chem.* 282: 17985-17996.
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- Parra-Bonilla, G., et al. 2010. Critical role for lactate dehydrogenase A in aerobic glycolysis that sustains pulmonary microvascular endothelial cell proliferation. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 299: L513-L522.
- Trembley, J.H., et al. 2011. Systemic administration of antisense oligonucleotides simultaneously targeting CK2 α and α' subunits reduces orthotopic xenograft prostate tumors in mice. *Mol. Cell. Biochem.* 356: 21-35.
- Esen, E., et al. 2013. WNT-LRP5 signaling induces Warburg effect through mTORC2 activation during osteoblast differentiation. *Cell Metab.* 17: 745-755.



Try **LDH-A (E-9): sc-137243** or **LDH-A (E-9): sc-137243**, our highly recommended monoclonal alternatives to LDH-A (N-14). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **LDH-A (E-9): sc-137243**.