SANTA CRUZ BIOTECHNOLOGY, INC.

LDH-AL6B (P-20): sc-247418

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 testis and sperm. LDH-AL6B (lactate dehydrogenase A-like 6B), also known as LDHL or LDHAL6, is a 381 amino acid testis-specific protein that functions in a similar manner to LDH-A, specifically catalyzing the NAD^+-dependent formation of pyruvate and NADH.

REFERENCES

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2. LeVan, K.M., et al. 1991. Properties of human testis-specific lactate dehydrogenase expressed from *Escherichia coli*. Biochem. J. 273: 587-592.
3. Kanno, T., et al. 1995. Lactate dehydrogenase M-subunit deficiencies: clinical features, metabolic background, and genetic heterogeneities. Muscle Nerve 3: 54-60.
4. Kopperschlager, G., et al. 1996. Methods for the separation of lactate dehydrogenases and clinical significance of the enzyme. J. Chromatogr. B Biomed. Appl. 684: 25-49.
5. Auerbach, G., et al. 1998. Lactate dehydrogenase from the hyperthermophilic bacterium Thermotoga maritima: the crystal structure at 2.1 A resolution reveals strategies for intrinsic protein stabilization. Structure 6: 769-781.
6. Niwakawa, M., et al. 2001. The role of tumor markers in the treatment of germ cell tumor. Gan. To. Kagaku Ryoho 28: 1159-65.
7. Pioli, P.A., et al. 2002. Lactate dehydrogenase is an AU-rich element-binding protein that directly interacts with AUF1. J. Biol. Chem. 277: 35738-35745.

CHROMOSOMAL LOCATION

Genetic locus: Ldhal6b (mouse) mapping to 17 A1.

SOURCE

LDH-AL6B (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LDH-AL6B of mouse 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-247418 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

LDH-AL6B (P-20) is recommended for detection of LDH-AL6B of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-AL6A.

Suitable for use as control antibody for LDH-AL6B siRNA (m): sc-146690, LDH-AL6B shRNA Plasmid (m): sc-146690-SH and LDH-AL6B shRNA (m) Lentiviral Particles: sc-146690-V.

Molecular Weight of LDH-AL6B: 42 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.