Active Recombinant Rat Ldhc protein, His-tagged

Cat. No. Ldhc-1769R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat Ldhc protein(P19629)(1-332 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Rat
Source	E.coli
ProteinLength	1-332 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	A hallmark of most cancer cells is an altered metabolism involving a shift to aerobic glycolysis with lactate production coupled with a higher uptake of glucose as the main source of energy. Lactate dehydrogenase (LDH) is key to this shift by catalyzing the formation of lactate by reducing pyruvate with NADH, which also generates NAD( ) that is essential for the continuity of glycolysis. Inhibiting LDH activity has an anti-proliferative effect on cancer cells. It may reverse the resistance of tumor cells to conventional chemo- and radiotherapy. Recent research has renewed interest in LDH as an anticancer drug target. LDH enzymes have three homologous subunits LDHA, LDHB and LDHC. The activity of recombinant rat LDHC was measured by its ability to reduce pyruvate to lactate. The reaction was performed in 25 mM Tris, 100 mM NaCl, pH 7.5 (assay buffer), initiated by addition 50 µL of various concentrations of rrLDHC (diluted by assay buffer) to 50 µ of substrate mixture 1.6 mM beta-NADH and 4 mM sodium pyruvate. The final well serves as a negative control with no rrLDHC, replaced

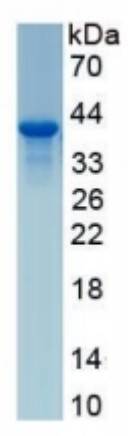
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	with 50 µl assay buffer. Read at a wavelength of 340 nm in kinetic mode for 5 minutes. The specific activity of recombinant rat LDHC is > 880 pmol/min/µg.
Molecular Mass	39.4kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 95%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Ldhc lactate dehydrogenase C [Rattus norvegicus]
Official Symbol	Ldhc
Synonyms	LDHC; lactate dehydrogenase C; L-lactate dehydrogenase C chain; LDH-C; LDH-X; LDH testis subunit; lactate dehydrogenase 3, C chain, sperm specific; Ldh3;
Gene ID	29634
mRNA Refseq	NM_017266
Protein Refseq	NP_058962

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