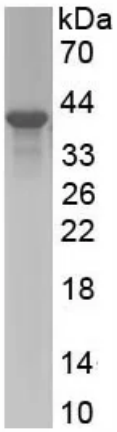
Active Lactate Dehydrogenase C (LDHC)

Catalog#:PER12930

概述（Summary）

别称（Alternative Names）	LDH-C; CT32; LDHX; LDH3; Cancer/Testis Antigen 32; LDH testis subunit
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Met1-Leu332】
Accession #	P19629
表达宿主（Host）	E.coli
种属（Species）	Rattus norvegicus (Rat)
预测分子量（Predicted MW）	39.4 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Possible role in sperm motility.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

Specific Activity (pmol/min/ug)=

$$\frac{\text{Adjusted } V_{max}^{*} \text{ (OD/min) x well volume (L) x } 10^{12} \text{ pmol/mol}}{\text{ext. coeff}^{**} \text{ } (M^{-1}cm^{-1}) \text{ x path corr.}^{***} \text{ (cm) x amount of enzyme (ug)}}$$

*Adjusted for Substrate Blank
**Using the extinction coefficient 6220 $M^{-1}cm^{-1}$
***Using the path correction 0.320 cm

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 µL 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 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.

注意事项（Note）

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