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**Product Data Sheet**


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Product Name: LDHA Human  
 Cat. No.: GP21872  
 Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	LDH-A; GSD11; LDH1; LDHM; PIG19; EC 1.1.1.27; lactate dehydrogenase M; LDH-M; LDH-1; L-lactate dehydrogenase A chain; LDH muscle subunit; Renal carcinoma antigen NY-REN-59; Cell proliferation-inducing gene 19 protein; LDHA.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MATLKDQLIY NLLKEEQTPQ NKITVVGVGA VGMACAISIL MKDLADELAL VDVIEDKLKG EMMDLQHGSL FLRTPKIVSG KDYNVTANSK LVIITAGARQ QEGESRLNLV QRNVNIFKFI IPNVVKYSPN CKLLIVSNPV DILTYVAWKI SGFPKNRVIG SGCNLD SARF RYLMGERLGV HPLSCHGWVL GEHGDSSVPV WSGMNVAGVS LKTLHPDLGT DKDKEQWKEV HKQVVESAYE VIKLKGYSW AIGLSVADLA ESIMKNLRRV HPVSTMIKGL YGIKDDVFLS VPCILGQNGI SDLVKVTLTS EEEARLKKSA DTLWGIQKEL QF.		
Formulation	The LDHA protein solution (0.5mg/ml) contains 20mM Tris-HCl pH-8.0, 100mM NaCl and 20% glycerol.		

**Introduction**

LDHA catalyzes the conversion of L-lactate and NAD to pyruvate and NADH in the final step of anaerobic glycolysis. LDHA is localized primarily in muscle tissue and is part of the lactate dehydrogenase family. Mutations in LDHA have been linked to exertional myoglobinuria. LDH1 is decreased in essential thrombocythemia. LDHA is induced through a non-genomic pathway of estrogen action. Reduction in LDH-A activity results in stimulation of mitochondrial respiration and decrease of mitochondrial membrane potential.

**Biological Activity**

Specific activity is > 20 units/mg. in which one unit will convert 1.0 umole of pyruvate to

**Caution: Product has not been fully validated for medical applications. For research use only.**

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L-lactate and beta-NAD per minute at pH 7.5 at 37°C .

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

LDHA Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 352 amino acids (1-332 a.a.) and having a molecular mass of 38.8 kDa. The LDHA is fused to a 20 amino acid his tag at N-terminus and purified by conventional chromatography.

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