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# Recombinant human Lactate Dehydrogenase A/LDHA protein

Catalog Number: ATGP0488

#### PRODUCT INFORMATION

# **Expression system**

E.coli

#### **Domain**

1-332aa

#### **UniProt No.**

P00338

#### **NCBI Accession No.**

NP 005557

### **Alternative Names**

Lactate dehydrogenase A, L-lactate dehydrogenase A chain, Cell proliferation-inducing gene 19 protein, PIG19, LDH muscle subunit, LDH-M, Renal carcinoma antigen NY-REN-59

# **PRODUCT SPECIFICATION**

# **Molecular Weight**

38.8 kDa (352aa) confirmed by MALDI-TOF

# **Concentration**

0.5mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.1M NaCl

#### **Purity**

> 95% by SDS-PAGE

# **Biological Activity**

Specific activity is > 300unit/mg, in which one unit will convert 1.0 umole of pyruvate to L-lactate and beta-NAD per minute at pH 7.5 at 37C.

#### Tag

His-Tag

# **Application**

SDS-PAGE, Enzyme Activity

#### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

# **BACKGROUND**

### **Description**

LDHA, also known as L-lactate dehydrogenase A chain, is an enzyme that catalyzes the conversion of L-lactate and NAD+ to pyruvate and NADH in the final step of anaerobic glycolysis. This protein is found predominantly in



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muscle tissue and belongs to the lactate dehydrogenase family. Mutations in LDHA have been linked to exertional myoglobinuria. Recombinant LDHA protein was expressed in E. coli and purified by using conventional chromatography techniques.

# **Amino acid Sequence**

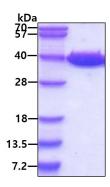
<MGSSHHHHHH SSGLVPRGSH> MATLKDQLIY NLLKEEQTPQ NKITVVGVGA VGMACAISIL MKDLADELAL VDVIEDKLKG EMMDLQHGSL FLRTPKIVSG KDYNVTANSK LVIITAGARQ QEGESRLNLV QRNVNIFKFI IPNVVKYSPN CKLLIVSNPV DILTYVAWKI SGFPKNRVIG SGCNLDSARF RYLMGERLGV HPLSCHGWVL GEHGDSSVPV WSGMNVAGVS LKTLHPDLGT DKDKEQWKEV HKQVVESAYE VIKLKGYTSW AIGLSVADLA ESIMKNLRRV HPVSTMIKGL YGIKDDVFLS VPCILGQNGI SDLVKVTLTS EEEARLKKSA DTLWGIQKEL QF

#### **General References**

Gosti F, et al. (1987) Proc. Natl. Acad. Sci. u.S.A. 84(4):1000-4 Chung FZ, et al. (1985) Biochem. J. 231(3):537-41.

# **DATA**

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

