NKMAXBio We support you, we believe in your research Recombinant rat Lactate Dehydrogenase A/LDHA protein Catalog Number: ATGP3368

# **PRODUCT INFORMATION**

**Expression system** Baculovirus

**Domain** 1-332aa

**UniProt No.** P04642

NCBI Accession No. NP\_058721

Alternative Names LDH muscle subunit, LDH-M

# **PRODUCT SPECIFICATION**

Molecular Weight 37.5 kDa (340aa)

### **Concentration** 0.25mg/ml (determined by absorbance at 280nm)

#### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 1mM DTT, 20% glycerol

#### Purity

> 95% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

#### **Biological Activity**

Specific activity is > 200unit/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 lactate dehydrogenase A, catalyzes the conversion of pyruvate to lactate, utilizing NADH as a cofactor. It has been identified as a potential therapeutic target in the area of cancer metabolism. Reduction in Ldha activity resulted in stimulation of mitochondrial respiration and decrease of mitochondrial membrane potential. Recombinant rat Ldha, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

MAALKDQLIV NLLKEEQVPQ NKITVVGVGA VGMACAISIL MKDLADELAL VDVIEDKLKG EMMDLQHGSL FLKTPKIVSS KDYSVTANSK LVIITAGARQ QEGESRLNLV QRNVNIFKFI IPNVVKYSPQ CKLLIVSNPV DILTYVAWKI SGFPKNRVIG SGCNLDSARF RYLMGERLGV HPLSCHGWVL GEHGDSSVPV WSGVNVAGVS LKSLNPQLGT DADKEQWKDV HKQVVDSAYE VIKLKGYTSW AIGLSVADLA ESIMKNLRRV HPISTMIKGL YGIKEDVFLS VPCILGQNGI SDVVKVTLTP DEEARLKKSA DTLWGIQKEL QFLEHHHHHH

#### **General References**

Ward RA., et al. (2012) J Med Chem. 55:3285-3306. Fantin VR., et al. (2006) Cancer Cell. 9:425-434.



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

# 15% SDS-PAGE (3ug)

