

# Product datasheet for AR09376PU-L

### OriGene Technologies, Inc.

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## Aldolase A / ALDOA (1-364, His-tag) Human Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Aldolase A / ALDOA (1-364, His-tag) human recombinant protein, 0.5 mg

Species: Human
Expression Host: E. coli

**Expression cDNA Clone** 

or AA Sequence:

 ${
m \underline{MGSSHHHHHH}}$  SSGLVPRGSH MPYQYPALTP EQKKELSDIA HRIVAPGKGI LAADESTGSI AKRLQSIGTE NTEENRRFYR QLLLTADDRV NPCIGGVILF HETLYQKADD GRPFPQVIKS

KGGVVGIKVD KGVVPLAGTN GETTTQGLDG LSERCAQYKK DGADFAKWRC VLKIGEHTPS
ALAIMENANV LARYASICQQ NGIVPIVEPE ILPDGDHDLK RCQYVTEKVL AAVYKALSDH HIYLEGTLLK

PNMVTPGHAC TQKFSHEEIA MATVTALRRT VPPAVTGITF LSGGQSEEEA SINLNAINKC PLLKPWALTF SYGRALQASA LKAWGGKKEN LKAAQEEYVK RALANSLACQ GKYTPSGQAG

AAASESLFVS NHAY

Tag: His-tag
Predicted MW: 41.5 kDa
Concentration: lot specific

Purity: >95% by SDS - PAGE

**Buffer:** Presentation State: Purified

State: Liquid purified protein

Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 100 mM NaCl, 10% glycerol

**Bioactivity:** Specific: > 1.5 units/mg.

One unit will convert 1.0 umole of fructose 1,6-diphosphate to dihydroxyacetone phosphate

and glyceraldehyde 3-phosphate per minute at pH 7.5 at 25°C.

(Activity assay see "Protocols").

Preparation: Liquid purified protein

Applications: Protocol: Activity Assay:

Prepare a 1.45 ml reaction mixture with the following concentrations: 45 mM Tris pH8.0, 0.95mM fructose 1,6-diphosphate, 0.065 mM beta-nicotinamide adenine dinucleotide, 5 unit

alpha-glcerophosphate dehydrogenase/triosephosphate isomerase.

2. Add 50 ul of recombinant Aldolase A protein with 1ug, 2ug in reaction mixture.

3. Record the decrease in A340nm for 5 minutes at 25°C.



#### Aldolase A / ALDOA (1-364, His-tag) Human Protein - AR09376PU-L

**Protein Description:** Recombinant human Aldolase A, fused to His-tag at N-terminus, was expressed in E.coli and

purified by using conventional chromatography techniques.

Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.

Avoid repeated freezing and thawing.

**Stability:** Shelf life: one year from despatch.

**RefSeq:** NP 000025

Locus ID: 226

UniProt ID: <u>P04075</u>, <u>V9HWN7</u>

Cytogenetics: 16p11.2

**Synonyms:** ALDA; GSD12; HEL-S-87p

**Summary:** This gene encodes a member of the class I fructose-bisphosphate aldolase protein family.

The encoded protein is a glycolytic enzyme that catalyzes the reversible conversion of fructose-1,6-bisphosphate to glyceraldehyde 3-phosphate and dihydroxyacetone phosphate. Three aldolase isozymes (A, B, and C), encoded by three different genes, are differentially expressed during development. Mutations in this gene have been associated with Glycogen Storage Disease XII, an autosomal recessive disorder associated with hemolytic anemia. Disruption of this gene also plays a role in the progression of multiple types of cancers. Related pseudogenes have been identified on chromosomes 3 and 10. [provided by RefSeq,

Sep 2017]

**Protein Families:** Druggable Genome

**Protein Pathways:** Fructose and mannose metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways,

Pentose phosphate pathway

# **Product images:**

