## **Product information**



### Aldolase A, 1-364 aa

Human, His-tagged, Recombinant, E.coli

Cat. No. IBATGP0477

Full name: Fructose bisphosphate aldolase A NCBI Accession No.: NP\_908930

Synonyms: ALDOA, ALDA, GSD12

**Description**: Fructose bisphosphate aldolase A, also known as Aldolase A is a glycolytic enzyme that catalyzes the reversible conversion of fructose-1,6-bisphosphate to glyceraldehyde 3-phosphate and dihydroxyacetone phosphate. It is found in the developing embryo and is produced in even greater amounts in adult muscle. Aldolase A expression is repressed in adult liver, kidney and intestine and similar to aldolase C levels in brain and other nervous tissue. Deficiency has been associated with myopathy and hemolytic anemia. Recombinant human Aldolase A, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

Form: Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 100mM NaCl,

10% glycerol

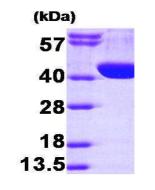
Molecular Weight: 41.5 kDa (384aa), confirmed by MALDI-TOF

Purity: > 95% by SDS - PAGE

Concentration: 1 mg/ml (determined by Bradford assay)

**Biological activity:** Specific activity is > 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 25C.



15% SDS-PAGE (3ug)

#### Sequences of amino acids:

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

#### **Activity Assay:**

1. 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 β-nicotinamide adenine dinucleotide, 5 unit alpha-glcerophosphate

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



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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 25C.

#### **General references:**

Pfleiderer G., et al. (1975) Beitr Pathol. 156(3):266-79.

Kishi H., et al. (1987) Proc Natl Acad USA. 84(23):8623-7.

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

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