

Aldolase A, human recombinant

CATALOG #: 7359-100 100 µg

ALTERNATE NAMES: Fructose biphosphate Aldolase A, ALDOA, ALDA, GSD12

SOURCE: E. coli

PURITY: > 95% by SDS-PAGE

FORM: Liquid

FORMULATION: 1 mg/ml in 20 mM Tris-HCl buffer (pH 8.0) containing 100 mM NaCl and 10% glycerol.

MOL. WEIGHT: 41.5 kDa (384 aa, 1-364 aa + His Tag), confirmed by MALDI-TOF.

STORAGE CONDITIONS: 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.

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.

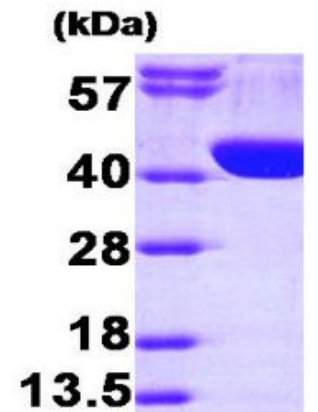
AMINO ACID SEQUENCE:

MGSSHHHHHH	SSGLVPRGSH	MPYQYPALTP
EQKKE LSDIA	HRIVAPGKGI	LADESTGSI
AKRLQSIGTE	NTEENRRFYR	
QLLLTADDRV	NPCIGGVILF	HETLYQKADD
GRFPQVIKS	KGGVVGIKVD	
KGVVPLAGTN	GETTTQGLDG	LSERCAQYK
DGADFAKWRC	VLKIGEHTPS	
ALAIMENANV	LARYASICQQ	NGIVIVEPE
ILPDGDHDLK	RCQYVTEKVL	
AAVYKALSDH	HIYLEGTLK	PNMVTPEHAC
TQKFSHEEIA	MATVTALRRT	
VPPAVTGITF	LSGGQSEEEA	SINLNAINKC
PLLKPWALTF	SYGRALQASA	
LKAWGGKKEN	LKAAQEYVK	RALANSLACQ
GKYTPSGQAG	AAASESLFVS	NHAY

BIOLOGICAL ACTIVITY: Specific activity is > 1.5 units/mg. One unit will convert 1.0 µmole of fructose 1, 6-diphosphate to dihydroxyacetone phosphate and glyceraldehyde 3-phosphate per minute at pH 7.5 at 25°C.

ACTIVITY ASSAY:

1. Prepare a 1.45 ml reaction mixture with the following concentrations: 45 mM Tris pH 8.0, 0.95 mM fructose 1, 6-diphosphate, 0.065 mM β-nicotinamide adenine dinucleotide, 5 unit α-glycerophosphate dehydrogenase/triosephosphate isomerase.
2. Add 50 µl of recombinant Aldolase A protein with 1 µg, 2 µg in reaction mixture.
3. Record the decrease in A340 nm for 5 minutes at 25°C.



15% SDS-PAGE (3µg)

Aldolase A, human recombinant

RELATED PRODUCTS:

- Human Recombinant NSE (Cat. No. 6362-100)
- Human Recombinant Beta-Enolase (Cat. No. 6364-50)

FOR RESEARCH USE ONLY! Not to be used in humans.

