

Product datasheet for **RC202576**

Aldolase (ALDOA) (NM_000034) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aldolase (ALDOA) (NM_000034) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aldolase
Synonyms:	ALDA; GSD12; HEL-S-87p
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202576 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCCTACCAATATCCAGCACTGACCCCGGAGCAGAAGAAGGAGCTGTCTGACATCGCTCACCGCATCG
TGGCACCTGGCAAGGGCATCCTGGCTGCAGATGAGTCCACTGGGAGCATTGCCAAGCGGCTGCAGTCCAT
TGGCACCGAGAACCAGGAGAAACCGGCGTTCTACCGCCAGCTGCTGCTGACAGCTGACGACCGCGTG
AACCCCTGCATTGGGGTGTCTCCTCTCCATGAGACTCTACCAGAAGGCGGATGATGGCGTCCCT
TCCCCAAGTTATCAAATCCAAGGGCGGTGTTGTGGGCATCAAGGTAGACAAGGGCGTGGTCCCCCTGGC
AGGGACAAATGGCGAGACTACCACCAAGGTTGGATGGGCTGTCTGAGCGCTGTGCCCAGTACAAGAAG
GACGGAGCTGACTTCGCAAGTGCGTGTGTGCTGAAGATTGGGGAACACACCCCTCAGCCCTCGCCA
TCATGGAAAATGCCAATGTTCTGGCCGTTATGCCAGTATCTGCCAGCAGAATGGCATTGTGCCATCGT
GGAGCCTGAGATCCTCCCTGATGGGGACCATGACTTGAAGCGCTGCCAGTATGTGACCGAGAAGGTGCTG
GCTGCTGTCTACAAGGCTCTGAGTGACCACCACATCTACCTGGAAGGCACCTTGTGAAGCCCAACATGG
TCACCCAGGCCATGCTTGCCTCAGAAAGTTTCTCATGAGGAGATTGCCATGGCAGCCGTACAGCGCT
GCGCCGCACAGTGCCCCCGCTGCTACTGGGATCACCTTCTGTCTGGAGGCCAGAGTGAGGAGGAGGCG
TCCATCAACCTCAATGCCATTAACAAGTGCCCCCTGCTGAAGCCCTGGGCCCTGACCTTCTCTACGGCC
GAGCCCTGCAGGCCTCTGCCCTGAAGGCTGGGGCGGGAAGAAGGAGAACCCTGAAGGCTGCGCAGGAGGA
GTATGTCAAGCGAGCCCTGGCCAACAGCCTTGCTGTCAAGGAAAGTACTCTCCGAGCGGTGAGGCTGGG
GCTGCTGCCAGCGAGTCCCTCTCGTCTCTAACCACGCCTAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202576 protein sequence
Red=Cloning site Green=Tags(s)

MPYQYPALTPEQKKELSDIAHRIIVAPGKGILAADESTGSI AKRLQSIGTENTEENRRFYRQLLLTADDRV
 NPCIGGVILFHETLYQKADDGRFPFQVIKSKGGVVGIVDKGVVPLAGTNGETTTQGLDGLSERCAQYKK
 DGADFAKWRCVLKIGEHTPSALAIMENANVLARYASICQQNGI VIVEPEILPDGDHDLKRCQYVTEKVL
 AAVYKALSDHHIYLEGTL LKPNMVT PGHACTQKFSHEEIAMATV TLRRTVPPAVTGITFLSGGQSEEEA
 SINLNAINKCPLLKPWALTF SYGRALQASALKAWGGK KENL KAAQE EYVKRALANSLACQKGYTPSGQAG
 AAASESLFVSNHAY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6150_g02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000034

ORF Size: 1092 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_000034.3](#)

RefSeq Size: 2408 bp

RefSeq ORF: 1095 bp

Locus ID: 226

UniProt ID: [P04075](#)

Cytogenetics: 16p11.2

Domains: glycolytic_enzy

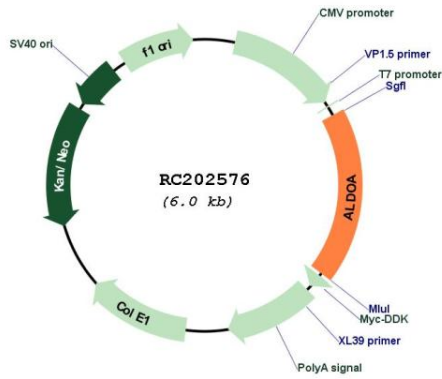
Protein Families: Druggable Genome

Protein Pathways: Fructose and mannose metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway

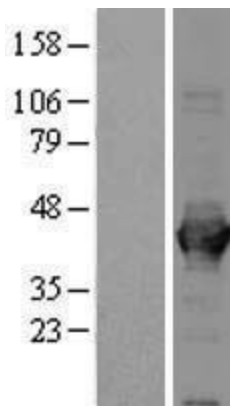
MW: 39.4 kDa

Gene 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]

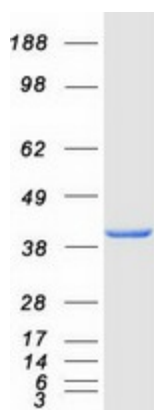
Product images:



Circular map for RC202576



Western blot validation of overexpression lysate (Cat# [LY426825]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225547] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALDOA protein (Cat# [TP302576]). The protein was produced from HEK293T cells transfected with ALDOA cDNA clone (Cat# RC202576) using MegaTran 2.0 (Cat# [TT210002]).