

## Product datasheet for RC203900

### Aldolase (ALDOA) (NM\_184041) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aldolase (ALDOA) (NM_184041) 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:	>RC203900 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCCTACCAATATCCAGCACTGACCCCGGAGCAGAAGAAGGAGCTGTCTGACATCGCTCACCGCATCG  
TGGCACCTGGCAAGGGCATCCTGGCTGCAGATGAGTCCACTGGGAGCATTGCCAAGCGGCTGCAGTCCAT  
TGGCACCGAGAACACCGAGGAGAACCGGCGTCTTACCGCCAGCTGCTGCTGACAGCTGACGACCGCGTG  
AACCCCTGCATTGGGGTGTCTCCTCTCCATGAGACTCTACCAGAAGGCGGATGATGGCGTCCCT  
TCCCCAAGTTATCAAATCCAAGGGCGGTGTTGTGGGCATCAAGGTAGACAAGGGCGTGGTCCCCCTGGC  
AGGGACAAATGGCGAGACTACCACCAAGGTTGGATGGGCTGTCTGAGCGCTGTGCCCAGTACAAGAAG  
GACGGAGCTGACTTCGCAAGTGGCGTTGTGTGCTGAAGATTGGGGAACACACCCCTCAGCCCTCGCCA  
TCATGGAAAATGCCAATGTTCTGGCCGTTATGCCAGTATCTGCCAGCAGAATGGCATTGTGCCATCGT  
GGAGCCTGAGATCCTCCCTGATGGGGACCATGACTTGAAGCGCTGCCAGTATGTGACCGAGAAGGTGCTG  
GCTGCTGTCTACAAGGCTCTGAGTGACCACCACATCTACCTGGAAGGCACCTTGTGAAGCCCAACATGG  
TCACCCAGGCCATGCTTGCCTCAGAAAGTTTCTCATGAGGAGATTGCCATGGCAGCCGTCACAGCGCT  
GCGCCGCACAGTGCCTCCCGCTGCTACTGGGATCACCTTCTGTCTGGAGGCCAGAGTGAGGAGGAGGCG  
TCCATCAACCTCAATGCCATTAACAAGTGCCCTGCTGAAGCCCTGGCCCTGACCTTCTCTACGGCC  
GAGCCCTGCAGGCCTCTGCCCTGAAGGCTGGGCGGGAAGAAGGAGAACCCTGAAGGCTGCGCAGGAGGA  
GTATGTCAAGCGAGCCCTGGCCAACAGCCTTGCTGTCAAGGAAAGTACTCTCCGAGCGGTCAGGCTGG  
GCTGCTGCCAGCGAGTCCCTCTCGTCTCTAACCACGCCTAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203900 protein sequence  
Red=Cloning site Green=Tags(s)

MPYQYPALTPEQKKELSDIAHRIIVAPGKGI LAADSTGSI AKRLQSIGTENTEENRRFYRQLLLTADRV  
 NPCIGGVILFHETLYQKADDGRFPFQVIKSKGGVVGIVDKGVVPLAGTNGETTTQGLDGLSERCAQYKK  
 DGADFAKWRCVLKIGEHTPSALAIMENANV LARYASICQQNGI VIVEPEILPDGDHDLKRCQYVTEKVL  
 AAVYKALSDHHIYLEGTL LKPNM VTPGHACTQKFSHEEIAMATV TALARRTVPPAVTGITFLSGGQSEEEA  
 SINLNAINKCPLLKPWALTF SYGRALQASAL KAWGGK KENL KAAQE EYVKRALANSLACQK YTPSGQAG  
 AAASESLFVSNHAY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6304\\_d01.zip](https://cdn.origene.com/chromatograms/mk6304_d01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_184041

**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\\_184041.5](#)

**RefSeq Size:** 1597 bp

**RefSeq ORF:** 1095 bp

**Locus ID:** 226

**UniProt ID:** [P04075](#)

**Cytogenetics:** 16p11.2

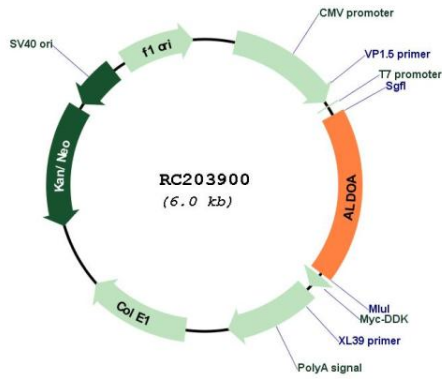
**Protein Families:** Druggable Genome

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

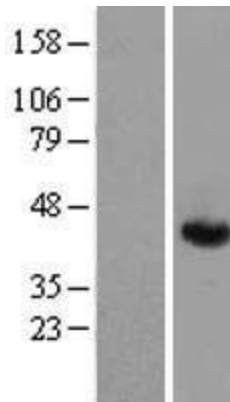
**MW:** 39.4 kDa

**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]

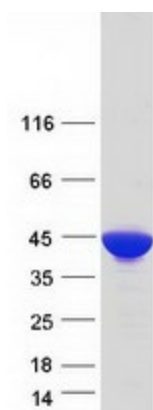
Product images:



Circular map for RC203900



Western blot validation of overexpression lysate (Cat# [LY405207]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC203908] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALDOA protein (Cat# [TP303900]). The protein was produced from HEK293T cells transfected with ALDOA cDNA clone (Cat# RC203900) using MegaTran 2.0 (Cat# [TT210002]).