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Product datasheet for RC220062

ALDOB (NM_000035) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDOB (NM_000035) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ALDOB
Synonyms:	ALDB; ALDO2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC220062 representing NM_000035
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCCACCGATTTCCAGCCCTCACCCAGGAGCAGAAGAAGGAGCTCTCAGAAATTGCCCAGAGCATTG
TTGCCAATGGAAAGGGGATCCTGGCTGCAGATGAATCTGTAGGTACCATGGGGAACCGCCTGCAGAGGAT
CAAGGTGGAAAACACTGAAGAGAACCGCCGGCAGTTCCGAGAAATCCTCTTCTCTGTGGACAGTTCCATC
AACCAGAGCATCGGGGGTGTGATCCTTTTCCACGAGACCCTCTACCAGAAGGACAGCCAGGGAAAGCTGT
TCAGAAACATCCTCAAGGAAAAGGGGATCGTGGTGGGAATCAAGTTAGACCAAGGAGGTGCTCCTCTTGC
AGGAACAAACAAAGAAACCACCATTCAAGGGCTTGATGGCCTCTCAGAGCGCTGTGCTCAGTACAAGAAA
GATGGTGTTGACTTTGGGAAGTGGCGTGCTGTGCTGAGGATTGCCGACCAGTGTCCATCCAGCCTCGCTA
TCCAGGAAAACGCCAACGCCCTGGCTCGCTACGCCAGCATCTGTCAGCAGAATGGACTGGTACCTATTGT
TGAACCAGAGGTAATTCCTGATGGAGACCATGACCTGGAACACTGCCAGTATGTTACTGAGAAGGTCCTG
GCTGCTGTCTACAAGGCCCTGAATGACCATCATGTTTACCTGGAGGGCACCCTGCTAAAGCCCAACATGG
TGACTGCTGGACATGCCTGCACCAAGAAGTATACTCCAGAACAAGTAGCTATGGCCACCGTAACAGCTCT
CCACCGTACTGTTCCTGCAGCTGTTCCTGGCATCTGCTTTTTGTCTGGTGGCATGAGTGAAGAGGATGCC
ACTCTCAACCTCAATGCTATCAACCTTTGCCCTCTACCAAAGCCCTGGAAACTAAGTTTCTCTTATGGAC
GGGCCCTGCAGGCCAGTGCACTGGCTGCCTGGGGTGGCAAGGCTGCAAACAAGGAGGCAACCCAGGAGGC
TTTTATGAAGCGGGCCATGGCTAACTGCCAGGCGGCCAAAGGACAGTATGTTCATACGGGTTCTTCTGGG
GCTGCTTCCACCCAGTCGCTCTTCACAGCCTGCTATACCTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC220062 representing NM_000035
Red=Cloning site Green=Tags(s)

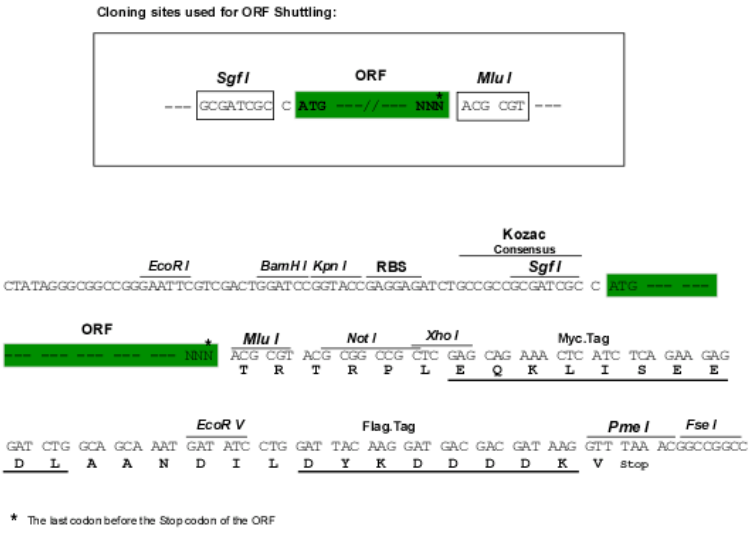
MAHRFPALTQEQKKELSEIAQSIVANGKGILAADESVGTMGNRLQRIKVENTEENRRQFREILFSVDSSI
NQSIGGVILFHETLYQKDSQGKLFRNILKEKGIVVGIKLDQGGAPLAGTNKETTIQGLDGLSERCAQYKK
DGVDFGKWRAVLRIADQCPSSLAIQENANALARYASICQQNGLVPIVEPEVIPDGDHDLEHCQYVTEKVL
AAVYKALNDHHVYLEGTLLKPNMVTAGHACTKKYTPEQVAMATVTALHRTVPAAVPGICFLSGGMSEEDA
TLNLNAINLCPLPKPWKLSFSYGRALQASALAAWGGKAANKEATQEAFMKRAMANCQAAKGQYVHTGSSG
AASTQSLFTACYTY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6045_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000035

ORF Size: 1092 bp

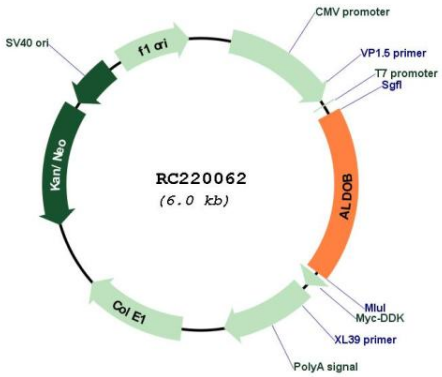
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

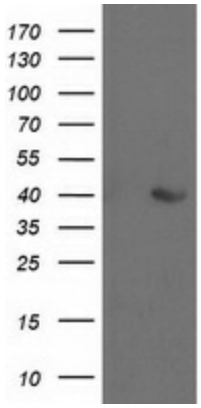
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000035.4
RefSeq Size:	1669 bp
RefSeq ORF:	1095 bp
Locus ID:	229
UniProt ID:	P05062
Cytogenetics:	9q31.1
Domains:	glycolytic_enzy
Protein Families:	Druggable Genome
Protein Pathways:	Fructose and mannose metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway
MW:	39.3 kDa
Gene Summary:	Fructose-1,6-bisphosphate aldolase (EC 4.1.2.13) is a tetrameric glycolytic enzyme that catalyzes the reversible conversion of fructose-1,6-bisphosphate to glyceraldehyde 3-phosphate and dihydroxyacetone phosphate. Vertebrates have 3 aldolase isozymes which are distinguished by their electrophoretic and catalytic properties. Differences indicate that aldolases A, B, and C are distinct proteins, the products of a family of related 'housekeeping' genes exhibiting developmentally regulated expression of the different isozymes. The developing embryo produces aldolase A, which is produced in even greater amounts in adult muscle where it can be as much as 5% of total cellular protein. In adult liver, kidney and intestine, aldolase A expression is repressed and aldolase B is produced. In brain and other nervous tissue, aldolase A and C are expressed about equally. There is a high degree of homology between aldolase A and C. Defects in ALDOB cause hereditary fructose intolerance. [provided by RefSeq, Dec 2008]

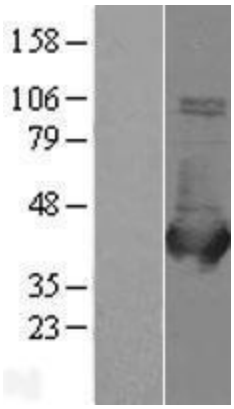
Product images:



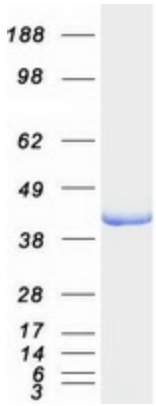
Circular map for RC220062



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALDOB (Cat# RC220062, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALDOB(Cat# [TA502909]). Positive lysates [LY400007] (100ug) and [LC400007] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400007]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220062 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALDOB protein (Cat# [TP320062]). The protein was produced from HEK293T cells transfected with ALDOB cDNA clone (Cat# RC220062) using MegaTran 2.0 (Cat# [TT210002]).