

Product datasheet for **RG234037**

Aldolase (ALDOA) (NM_001243177) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aldolase (ALDOA) (NM_001243177) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Aldolase
Synonyms:	ALDA; GSD12; HEL-S-87p
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG234037 representing NM_001243177 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAAGGGCGAAGCCAGAAGGGTCCAGCTTCAACATGACCCACCTGTCCATGGCTATGGCCTTTCT
TTCCCCAGTTGCCAGTGGGCACTCCACCCTCAGCTGGGCAACACCCAGCACCAGACAGAGTTAGGAAA
GGAAGTGGCTACTACCAGCACCATGCCCTACCAATATCCAGCACTGACCCCGAGCAGAAGAAGGAGCTG
TCTGACATCGCTACCGCATCGTGGCACCTGGCAAGGGCATCCTGGCTGCAGATGAGTCCACTGGGAGCA
TTGCCAAGCGGCTGCAGTCCATTGGCACCGAGAACACCGAGGAGAACCGGCGCTTCTACCGCCAGCTGCT
GCTGACAGCTGACGACCGCGTGAACCCCTGCATTGGGGGTGTATCCTCTTCCATGAGACTCTACCAG
AAGGCGGATGATGGGCGTCCCTTCCCCAAGTTATCAAATCCAAGGGCGGTGTTGTGGGCATCAAGGTAG
ACAAGGGCGTGGTCCCCCTGGCAGGGACAATGGCGAGACTACCACCAAGGGTTGGATGGGCTGTCTGA
GCGCTGTGCCAGTACAAGAAGGACGGAGCTGACTTCGCCAAGTGGCGTTGTGTGCTGAAGATTGGGGAA
CACACCCCTCAGCCCTCGCCATCATGGAAAATGCCAATGTTCTGGCCGTTATGCCAGTATCTGCCAGC
AGAATGGCATTGTGCCATCGTGGAGCCTGAGATCCTCCCTGATGGGACCATGACTTGAAGCGTGCCA
GTATGTGACCGAGAAGGTGCTGGCTGCTGTCTACAAGGCTCTGAGTGACCACCACATCTACCTGGAAGGC
ACCTTGCTGAAGCCCAACATGGTCACCCAGGCCATGCTTGCACTCAGAAGTTTTCTCATGAGGAGATTG
CCATGGCGACCGTCACAGCGCTGCGCCGACAGTGCCCCCGCTGTCACTGGGATCACCTTCTGTCTGG
AGGCCAGAGTGAGGAGGAGGCGTCCATCAACCTCAATGCCATTAACAAGTCCCCCTGCTGAAGCCCTGG
GCCCTGACCTTCTCCTACGGCCGAGCCCTGCAGGCCTCTGCCCTGAAGGCCTGGGGCGGGAAGAAGGAGA
ACCTGAAGGCTGCGCAGGAGGAGTATGTCAAGCGAGCCCTGGCCAACAGCCTTGCCTGTCAAGGAAAGTA
CACTCCGAGCGGTGAGGCTGGGGCTGCTGCCAGCGAGTCCCTCTCGTCTCTAACCACGCCTAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG234037 representing NM_001243177
 Red=Cloning site Green=Tags(s)

MARRKPEGSSFNMTHTLSMAMAFSFPVVASGQLHPQLGNTQHQTTELKELATTSTMPYQYPALTPEQKKEL
 SDIAHRIVAPGKILAADESTGSIKRLQSIGTENTEENRRFYRQLLLTADDRVNPCIGGVILFHETLYQ
 KADDGRFPFQVIKSKGGVVGIVDKGVVPLAGTNGETTTQGLDGLSERCAQYKKGADFAKWRCVLKIGE
 HTPSALAIMENANVLYARYASICQQNGIIVPEPEILPDGDHDLKRCQYVTEKVLAAVYKALSDHHIYLEG
 TLLKPNMVTYPGHACTQKFSHEEIAMATVTALRRTVPPAVTGITFLSGGQSEEEASINLNAINKCPLLKPW
 ALTFSYGRALQASALKAWGGKKNLAAQEEYVKRALANSLACQKYPSTSGAGAAASESLFVSNHAY

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001243177

ORF Size: 1254 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_001243177.4](#)

RefSeq Size: 1751 bp

RefSeq ORF: 1257 bp

Locus ID: 226

UniProt ID: [P04075](#)

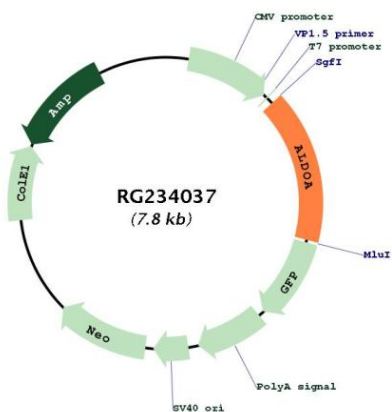
Cytogenetics: 16p11.2

Protein Families: Druggable Genome

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

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 RG234037