

## Product datasheet for **SC324070**

### Aldolase (ALDOA) (NM\_184041) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aldolase (ALDOA) (NM_184041) Human Untagged Clone
Tag:	Tag Free
Symbol:	Aldolase
Synonyms:	ALDA; GSD12; HEL-S-87p
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_184041.1  
CGGACTAGTTCTAGATCGCGAGCAGAAGCTCGAGGCTAAATCGGCTGCGTTCTCTCGGAA  
CGCGCCGAGAAGGGTCTGGTGACGAGTCCCGGTTCTCTCTGAATCCACTCGCCA  
GCCGCGCCCTCTGCCGCGCACCTGCACACCCGCCCTCTCCTGTGCCAGGAATTG  
CTACTACCAGCACCATTGCCCTACCAATATCCAGCACTGACCCCGAGCAGAAGAAGGAGC  
TGTCTGACATCGCTACCGCATCGTGGCACCTGGCAAGGGCATCTGGCTGCAGATGAGT  
CCACTGGGAGCATTGCCAAGCGGCTGCAGTCCATTGGCACCGAGAACACCGAGGAGAACC  
GGCGCTTCTACCGCCAGCTGCTGCTGACAGCTGACGACCGGTGAACCCCTGCATTGGGG  
GTGTCATCTCTCCATGAGACTCTACCAGAAGGGGATGATGGGCGTCCCTCCCCC  
AAGTTATCAAATCCAAGGGCGGTGTGGGATCAAGGTAGACAAGGGCGTGGTCCCCC  
TGGCAGGGACAAATGGCGAGACTACCACCAAGGGTTGGATGGGCTGTCTGAGCGCTGTG  
CCCAGTACAAGAAGGACGGAGCTGACTTCGCCAAGTGGCGTTGTGTGCTGAAGATTGGGG  
AACACACCCCTCAGCCCTCGCCATCATGGAAAATGCCAATGTTCTGGCCGTTATGCCA  
GTATCTGCCAGCAGAATGGCATTGTGCCCATCGTGGAGCCTGAGATCCTCCCTGATGGGG  
ACCATGACTTGAAGCGCTGCCAGTATGTGACCGAGAAGGTGCTGGCTGTCTACAAGG  
CTCTGAGTGACCACCATCTACCTGGAAGGCACCTTGTGAAGCCCAACATGGTCAACC  
CAGGCCATGCTTGCACTCAGAAGTTTTCTCATGAGGAGATTGCCATGGCGACCGTACAG  
CGCTGCGCCGACAGTGGCCCCGCTGTCACTGGGATCACCTTCTGTCTGGAGGCCAGA  
GTGAGGAGGAGGGTCCATCAACCTCAATGCCATTAACAAGTGCCCTGCTGAAGCCCT  
GGGCCCTGACCTTCTCTACGGCCGAGCCCTGCAGGCCCTGCCCCTGAAGGCCTGGGGCG  
GGAAGAAGGAGAACCTGAAGGCTGCGCAGGAGGATATGTCAAGCGAGCCCTGGCCAACA  
GCCTTGCTGTCAAGGAAAGTACTCCGAGCGGTGAGGCTGGGGCTGCTGCCAGCGAGT  
CCCTCTTCGTCTTAACCACGCCTATTAAGCGGAGGTGTTCCAGGCTGCCCCCAACT  
CCAGGCCCTGCCCTCCACTCTGAAGAGGAGGCCCTCCTCGGGCTCCAGGCTGG  
CTTGCCCGCTCTTTCTCCCTCGTGACAGTGGTGTGGTGTCTGTGAATGCTAA  
GTCCATCACCTTTCCGGCACACTGCCAAATAACAGCTATTTAAGGGGGAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAA



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<b>Restriction Sites:</b>	EcoRI-NOT
<b>ACCN:</b>	NM_184041
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_184041.1</a> , <a href="#">NP_908930.1</a>
<b>RefSeq Size:</b>	1572 bp
<b>RefSeq ORF:</b>	1095 bp
<b>Locus ID:</b>	226
<b>UniProt ID:</b>	<a href="#">P04075</a>
<b>Cytogenetics:</b>	16p11.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	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]

Transcript Variant: This variant (2) differs in the 5' UTR, compared to variant 1. Variants 1-4 encode the same isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.