

Product datasheet for **SC209391**

Aconitase 1 (ACO1) (NM_002197) Human 3' UTR Clone

Product data:

Product Type:	3' UTR Clones
Product Name:	Aconitase 1 (ACO1) (NM_002197) Human 3' UTR Clone
Vector:	pMirTarget (PS100062)
Symbol:	ACO1
Synonyms:	ACONS; HEL60; IREB1; IREBP; IREBP1; IRP1
ACCN:	NM_002197
Insert Size:	2000 bp



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Insert Sequence:

>SC209391 3'UTR clone of NM_002197

The sequence shown below is from the reference sequence of NM_002197. The complete sequence of this clone may contain minor differences, such as SNPs.

Blue=Stop Codon Red=Cloning site

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GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAAGCCAAGAAGGGCGGAAAGATCGCCGTG
TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC
AACTACATGATCCGCAAGATGGCCAAGTAGGAGACGTGCACTTGGTGTGCGCCAGGGAGGAAGCCGC
ACCACCAGCCAGCGCAGGCCCTGGTGGAGAGGCCCTCCCTGGCTGCCTCTGGGAGGGGTGCTGCCTTGTA
GATGGAGCAAGTGAAGTCTGAGGGTCTGGTGCCAACTCCTGTAGGCACAAAACCAGAAGTTTCTACATTC
TCTATTTTTGTTAATCATCTTCTCTTTTCCAGAATTTGGAAGCTAGAATGGTGGGAATGTCAGTAGTG
CCAGAAAGAGAGAACCAAGCTTGTCTTTAAAGTACTGATCACAGGACGTTGCTTTTTCACTGTTTCTT
ATTAATCTTCAGCTGAACACAAGCAAACCTTCTCAGGAGGTGTCTCTACCCTCTTATTGTTCTCTTA
CGCTCTGCTCAATGAAACCTTCTCTGGAGGGTCAATTTCTTTCTGTATTAATTATACCAGTGTTAAG
TGACATAGATAAGAACTTGCACACTTCAAATCAGAGCAGTGATTCTCTTCTCTCCCCTTTTCTTCTC
AGAGTGAATCATCCAGACTCCTCATGGATAGGTCGGGTGTTAAAGTTGTTTTGATTATGTACCTTTTGA
TAGATCCACATAAAAAGAAATGTGAAGTTTTCTTTTACTATCTTTTCATTATCAAGCAGAGACCTTTG
TTGGGAGGCGGTTTGGGAGAACACATTTCTAATTTGAATGAAATGAAATCTATTTTCAGTGAAAACCTTG
TTGACTTTGAGTTTTGCTGTGTTTGGGCTAGAGTTTTGGGATATTTAGTACAGAGTGAATCTCACACC
ATATCATTGGGAAGCCTGAATAACCTTCATATTCTCCATTTTTACAACCTATCAGAAGTACGGGT
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GCCTGGTGGCAGTGGCAACGATATAAGTACATAAGGAAAAGCAGATAAACTTCAGGACACTAAAAACCA
ATTATCTGCTCATTTTTTACCCCTGTAGTCATTTCTGGGCATGCCTTAGTTTGGTTGGTATAATG
TAATGCCATAGACTGGCTGAAAGAACAGAAATGTATTTTCTCACAGTTATGGAGGCTGGAATTCTGAGA
TCAAAGTTGAAGCCACTTCATTTTCTGGTGGAGCACTCTTCTGGTTTACAGATGGCCACCTTCTTGC
TTGTTCTCACATGGCATTCTTTGGTATGTGCCTGGTGGGGAGAGAGAAAATAGGCTCTCATGTCTCT
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TAACAACCTGGTTCAAGTCCAAATGCCTAAGAACCTGGGAGGGGCATGGGGAATGCTGGTATAAGTCC
CAGAGTCTGAATGCCAGGAACAAGCAGGAGCTGTGATGTCCAAGGACAGGAGGGCAGGATCTTTGTAA
TGAATTTTTAATGTCAACCTTAGCACTCAGGGGATATGGCCTGGTATCAGAACATCTGGAATCTAATC
CTCTTTCTACTTCTCACCAGATGAGGGATCAAGACAGGTTATTTAGCATCCCTGCACTTGGGGTCTGG
GGATCTTATTTATATTCATTTAAAAAATAAATTACAAACAACAGCCAGGCGCAGTGGCTCATGCCTAT
AATTCATCACTTTGGGAGGCCGAGGTGGGTAGATCACCTGAGGTGAGGATTTAGACCAGCCTGGCC
AACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCAGGTGTGGTATTGTGTGCCTGTAA
TCCCAGCTACACAGGAGGCTGAGGCAGGAGAATTGCTTAAACCCGGGATGCAGAGGCTGCAGTGAGCCG
AGATCGTGCCATTGCACGCCCGCCTGGGCTACAAGAGCAAAGCTCCGTCTCAAAAAAAAAAAAAAATT
ACGCGTAAGCGGCCGCGGCATCTAGATTCAAGAAAAATGACCGACCAAGCGACGCCCAACCTGCCATCA
CGAGATTCGATTCCACCGCCGCTTCTATGAAAGG
    
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Restriction Sites:

Sgfl-Mlul

OTI Disclaimer:

Our molecular clone sequence data has been matched to the sequence identifier above as a point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences, e.g., single nucleotide polymorphisms (SNPs).

Components:

The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.

RefSeq:

[NM_002197.3](#)

Summary:

The protein encoded by this gene is a bifunctional, cytosolic protein that functions as an essential enzyme in the TCA cycle and interacts with mRNA to control the levels of iron inside cells. When cellular iron levels are high, this protein binds to a 4Fe-4S cluster and functions as an aconitase. Aconitases are iron-sulfur proteins that function to catalyze the conversion of citrate to isocitrate. When cellular iron levels are low, the protein binds to iron-responsive elements (IREs), which are stem-loop structures found in the 5' UTR of ferritin mRNA, and in the 3' UTR of transferrin receptor mRNA. When the protein binds to IRE, it results in repression of translation of ferritin mRNA, and inhibition of degradation of the otherwise rapidly degraded transferrin receptor mRNA. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Alternative splicing results in multiple transcript variants [provided by RefSeq, Jan 2014]

Locus ID:

48

MW:

75.4