

## Product datasheet for **AR09811PU-S**

### ACO1 / IREB1 (1-889, His-tag) Human Protein

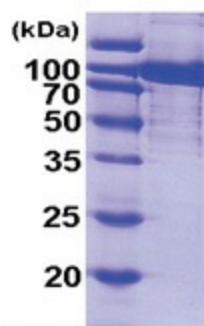
#### Product data:

Product Type:	Recombinant Proteins
Description:	ACO1 / IREB1 (1-889, His-tag) human recombinant protein, 10 µg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH</u> <u>SSGLVPRGSH</u> <u>MGSMSNPFAH</u> LAEPLDPVQP GKKFFNLNKL EDSRYGRLPF SIRVLEAAI RNCDEFLVKK QDIENILHWN VTQHKNIEVP FKPARVILQD FTGVPVAVDF AAMRDAVKKL GGDPEKINPV CPADLVIDHS IQVDFNRRAD SLQKNQDLEF ERNRERFEFL KWGSQAFHNM RIIPPGSGII HQVNLEYLAR VVFDQDGYYY PDSLVTGDSH TT MIDGLGIL GWGVGGIEAE AVMLGQPISM VLPQVIGYRL MGKPHPLVTS TDIVLTITKH LRQVGWVGKF VEFFGPGVAQ LSIADRATIA NMCPEYGATA AFFPVDEVSI TYLVQTGRDE EKLKYIKKYL QAVGMFRDFN DPSQDPDFTQ VVELDLKTVV PCCSGPKRPQ DKVAVSDMKK DFESCLGAKQ GFKGFQVAPE HHNDHKTFIY DNTEFTLAHG SVVIAAITSC TNSNPSVML GAGLLAKKAV DAGLNVMPYI KTSLSPGSGV VTYYLQESGV MPYLSQLGFD VVGYGCMTCI GNSGPLPEPV VEAITQGDLV AVGVLSGNRN FEGRVHPNTR ANYLASPLV IAYAIAGTIR IDFEKEPLGV NAKGQQVFLK DIWPTRDEIQ AVERQYVIG MFKEVYQKIE TVNESWNALA TPSDKLFFWN SKSTYIKSPP FFENLTLDLQ PPKSIVDAYV LLNLGDSVTT DHISPAGNIA RNSPAARYLT NRGLTPREFN SYGSRNGNDA VMARGTFANI RLLNRFLNKQ APQTIHLPSG EILDVFDAAE RYQQAGLPLI VLAGKEYGAG SSRDWAAKGP FLLGIKAVLA ESYERIHRSN LVGMGVIPLE YLPGENADAL GLTGQERYTI IIPENLKPQM KVQVKLDTGK TFQAVMRFD T DVELTYFLNG GILNYMIRKM AK
Tag:	His-tag
Predicted MW:	100.8 kDa
Concentration:	lot specific
Purity:	>90%
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 2 mM DTT, 100 mM NaCl
Preparation:	Liquid purified protein
Protein Description:	Recombinant human ACO1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.



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<b>Storage:</b>	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>RefSeq:</b>	<a href="#">NP_001265281</a>
<b>Locus ID:</b>	48
<b>UniProt ID:</b>	<a href="#">P21399</a> , <a href="#">V9HWB7</a> , <a href="#">Q9HBB2</a>
<b>Cytogenetics:</b>	9p21.1
<b>Synonyms:</b>	ACONS; HEL60; IREB1; IREBP; IREBP1; IRP1
<b>Summary:</b>	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]
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Citrate cycle (TCA cycle), Glyoxylate and dicarboxylate metabolism, Metabolic pathways

**Product images:**

15% SDS-PAGE (3ug)