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Product datasheet for SC119428

Aconitase 2 (ACO2) (NM_001098) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aconitase 2 (ACO2) (NM_001098) Human Untagged Clone
Tag:	Tag Free
Symbol:	Aconitase 2
Synonyms:	ACONM; HEL-S-284; ICRD; OCA8; OPA9
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_001098, the custom clone sequence may differ by one or more nucleotides

ATGGCGCCCTACAGCCTACTGGTGACTCGGCTGCAGAAAGCTCTGGGTGTGCGGCAGTACCATGTGGCCT
CAGTCCTGTGCCAACGGGCCAAGGTGGCGATGAGCCACTTTGAGCCCAACGAGTACATCCATTATGACCT
GCTAGAGAAGAACATTAACATTGTTCGCAAACGACTGAACCGGCCGCTGACACTCTCGGAGAAGATTGTG
TATGGACACCTGGATGACCCCGCCAGCCAGGAAATTGAGCGAGGCAAGTCGTACCTGCGGCTGCGGCCGG
ACCGTGTGGCCATGCAGGATGCGACGGCCCAGATGGCCATGCTCCAGTTCATCAGCAGCGGGCTGTCCAA
GGTGGCTGTGCCATCCACCATCCACTGTGACCATCTGATTGAAGCCCAGGTTGGGGGCGAGAAAGACCTG
CGCCGGGCCAAGGACATCAACCAGGAAGTTTATAATTTCCTGGCAACTGCAGGTGCCAAATATGGCGTGG
GCTTCTGGAAGCCTGGATCTGGAATCATTCACCAGATTATTCTGGAAAACTATGCGTACCCTGGTGTTCT
TCTGATTGGCACTGACTCCCACACCCCCAATGGTGGCGGCCTTGGGGGCATCTGCATTGGAGTTGGGGGT
GCCGATGCTGTGGATGTCATGGCTGGGATCCCCTGGGAGCTGAAGTGCCCCAAGGTGATTGGCGTGAAGC
TGACGGGCTCTCTCTCCGGTTGGTCCTCACCCAAAGATGTGATCCTGAAGGTGGCAGGCATCCTCACGGT
GAAAGGTGGCACAGGTGCAATCGTGGAATACCACGGGCCTGGTGTAGACTCCATCTCCTGCACTGGCATG
GCGACAATCTGCAACATGGGTGCAGAAATTGGGGCCACCACTTCCGTGTTCCCTTACAACCACAGGATGA
AGAAGTACCTGAGCAAGACCGGCCGGGAAGACATTGCCAATCTAGCTGATGAATTCAAGGATCACTTGGT
GCCTGACCCTGGCTGCCATTATGACCAACTAATTGAAATTAACCTCAGTGAGCTGAAGCCACACATCAAT
GGGCCCTTCACCCCTGACCTGGCTCACCCTGTGGCAGAAGTGGGCAAGGTGGCAGAGAAGGAAGGATGGC
CTCTGGACATCCGAGTGGGTCTAATTGGTAGCTGCACCAATTCAAGCTATGAAGATATGGGGCGCTCAGC
AGCTGTGGCCAAGCAGGCACTGGCCCATGGCCTCAAGTGCAAGTCCCAGTTCACCATCACTCCAGGTTCC
GAGCAGATCCGCGCCACCATTGAGCGGGACGGCTATGCACAGATCTTGAGGGATCTGGGTGGCATTGTCC
TGGCCAATGCTTGTGGCCCCTGCATTGGCCAGTGGGACAGGAAGGACATCAAGAAGGGGGAGAAGAACAC
AATCGTCACCTCCTACAACAGGAACTTCACGGGCCGCAACGACGCAAACCCCGAGACCCATGCCTTTGTC
ACGTCCCCAGAGATTGTCACAGCCCTGGCCATTGCGGGAACCCTCAAGTTCAACCCAGAGACCGACTACC
TGACGGGCACGGATGGCAAGAAGTTCAGGCTGGAGGCTCCGGATGCAGATGAGCTTCCCAAAGGGGAGTT
TGACCCAGGGCAGGACACCTACCAGCACCCACCCAAGGACAGCAGCGGGCAGCATGTGGACGTGAGCCCC
ACCAGCCAGCGCCTGCAGCTCCTGGAGCCTTTTGACAAGTGGGATGGCAAGGACCTGGAGGACCTGCAGA
TCCTCATCAAGGTCAAAGGGAAGTGTACCACTGACCACATCTCAGCTGCTGGCCCCTGGCTCAAGTTCCG
TGGGCACTTGGATAACATCTCCAACAACCTGCTCATTGGTGCCATCAACATTGAAAACGGCAAGGCCAAC
TCCGTGCGCAATGCCGTCACTCAGGAGTTTGGCCCCGTCCCTGACACTGCCCGCTACTACAAGAAACATG
GCATCAGGTGGGTGGTGATCGGAGACGAGAACTACGGCGAGGGCTCGAGCCGGGAGCATGCAGCTCTGGA
GCCTCGCCACCTTGGGGGCCGGGCCATCATCACCAAGAGCTTTGCCAGGATCCACGAGACCAACCTGAAG
AAACAGGGCCTGCTGCCTCTGACCTTCGCTGACCCGGCTGACTACAACAAGATTCACCCTGTGGACAAGC
TGACCATTCAGGGCCTGAAGGACTTCACCCCTGGCAAGCCCCTGAAGTGCATCATCAAGCACCCCAACGG
GACCCAGGAGACCATCCTCCTGAACCACACCTTCAACGAGACGCAGATTGAGTGGTTCCGCGCTGGCAGT
GCCCTCAACAGAATGAAGGAACTGCAACAGTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001098 unedited
ACGACTCACTATAGGGCGGCCGCGATTCGGCACGAGGCACAAAAGGCGCCCTACAGCCTA
CTGGTGACTCGGCTGCAGAAAGCTCTGGGTGTGCGGCAGTACCATGTGGCCTCAGTCCTG
TGCCAACGGGCCAAGGTGGCGATGAGCCACTTTGAGCCCAACGAGTACATCCATTATGAC
CTGCTAGAGAAGAACATTAACATTGTTCGCAAACGACTGAACCGGCCGCTGACACTCTCG
GAGAAGATTGTGTATGGACACCTGGATGACCCCGCCAGCCAGGAAATTGAGCGAGGCAAG
TCGTACCTGCGGCTGCGGCCGGACCGTGTGGCCATGCAGGATGCGACGGCCCAGATGGCC
ATGCTCCAGTTCATCAGCAGCGGGCTGTCCAAGGTGGCTGTGCCATCCACCATCCACTGT
GACCATCTGATTGAAGCCCAGGTTGGGGGCGAGAAAGACCTGCGCCGGGCCAAGGACATC
AACCAGGAAGTTTATAATTTCCTGGCAACTGCAGGTGCCAAATATGGCGTGGGCTTCTGG
AAGCCTGGATCTGGAATCATTCACCAGATTATTCTGGAAAACTATGCGTACCCTGGTGTT
CTTCTGATTGGCACTGACTCCCACACCCCCAATGGTGGCGGCCTTGGNGGCATCTGCATT
GGAGTTGGGGGTGCCGATGCTGTGGATGTCATGGCTGGGATCCCCTGGGAGTTGAAGTGC
CCCAGGGTGATTGGCGTGAAGCTGACGGGCTCTCTCTCCGGTTGGTCCTCACCAAAGATG
TGATCCTGAAGGTGCANGCATNCTCACGGTGAAGGGTGCACAGGTGNCATCGTGGATACC
ACGGCCCTGGTGTANACTCCATCTNCTGCACTGGCATGGCGACAATCTGCANCATGGGTG
CAGAAAATGGGGCAACCACTTCGTGTTCCTTACACCCAGGAGNANAAGTACCTGACAGAC
GGNCGGAGAACTTGCATTACTGT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001098 unedited
GCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGTTTG
GAATCTTGGTTTCCTTGCAAAAACAAAAGGGTCTTTTAAATCCTTCAGCCCCCCATGAAA
TGATCAGGCCGGAAAAAAAACTTTAAATGGGAGTCTTGTCATCAAAAATAAATACCGTTGC
CTGGAGCTGGTTAAAATACTGAACCCAACTCCAAATAGGAAAACGGGGGCTTAAAAGTTA
TTTTAAAAACCCCCCCACCACAACCACAGTCACTCCGTGGGCTAAACGGGGAACAAGAAA
CATGTCTGGGCACACCATCTTGGAATAAGAAACCCTGGCTGGACGGATCGGATCCACTGG
TGGGCCACCTGGAGCTGAACTTTACGCCCCCGGCGGGGCGGGGAAGCACTGCCCTCACTG
GTGCAGGTCCTTTATTTTGTTGAGGGCACTGGCAGCGCGGAACCACTCAATCTGCGTCTT
GTTGAAAGGGTGGGTCAAGAGGATGGTCTCCTGGGTCCCCTTGGGGTGCTTGATGATGCA
CTTTAAGGGCTTGCCAGGGGTGAAATCCCTTAAGCCCTGAATGGTCAACTTGTCCCAGGG
TGAATTTTGTTGTAATCACCCGGGTCACCCAAAGTCATAAGCCACAAGCCCTGTTTCCTT
ACGGTGGGCCTCGGGGATCCTCGCACAACTTTTGGTGAATGAATGCCCCGGCCCCCAAGG
TGGCGAAGGGTTCCCAAACTGGTTGCTCCCCGGCTCCAAACCTCCGCCGCATTTTCTCGT
TTCCGATTCCCCCCCCCTTAATCCCAGTCTCCTTTTCCCTTTCCCCCCGGTCTTGGCCCG
CTCTCATCTTCCCCCGTACCCTCTCTCCCATTGTTTCCCCCTCCACCCTTTTCTTCCTCC
CCCCCTTCACCTCTCTTCTTTCGTTCCTTCACCGCCCTCTCCTTCCCCCCCCCTTACCCC
TCCTCCTACTTCTCCCCCTCCCCCATTTCTTCCATCTCCCCTCTACTCCCTCGCATCTTT
CCTCTAT

Restriction Sites: NotI-NotI

ACCN: NM_001098

Insert Size: 2800 bp

OTI Disclaimer: 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).

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_001098.2, NP_001089.1
RefSeq Size:	2744 bp
RefSeq ORF:	2343 bp
Locus ID:	50
UniProt ID:	Q99798
Cytogenetics:	22q13.2
Domains:	Aconitase_C, aconitase
Protein Pathways:	Citrate cycle (TCA cycle), Glyoxylate and dicarboxylate metabolism, Metabolic pathways
Gene Summary:	The protein encoded by this gene belongs to the aconitase/IPM isomerase family. It is an enzyme that catalyzes the interconversion of citrate to isocitrate via cis-aconitate in the second step of the TCA cycle. This protein is encoded in the nucleus and functions in the mitochondrion. It was found to be one of the mitochondrial matrix proteins that are preferentially degraded by the serine protease 15(PRSS15), also known as Lon protease, after oxidative modification. [provided by RefSeq, Jul 2008]