

## Product datasheet for **SC303923**

### AOC2 (NM\_009590) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AOC2 (NM_009590) Human Untagged Clone
Tag:	Tag Free
Symbol:	AOC2
Synonyms:	DAO2; RAO; SSAO
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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## Fully Sequenced ORF:

>OriGene sequence for NM\_009590 edited  
TGTTAGAATTCTGATTTTCAGCTCTCAGCATCCACCATGCATCTCAAGATAGTCCTGGCGT  
TCCTGGCACTGTCCCTCATTACCATCTTTGCCCTGGCCTATGTTTTGCTGACCAGCCCAG  
GTGGTTCCAGCCAGCCTCCCCACTGCCCCTCTGTATCCCATAGGGCCCAGCCCTGGCCAC  
ACCCTGGCCAGAGCCAGCTGTTTGACAGCTGAGCCGAGAGGAGTTGACAGCTGTGATGC  
GCTTTCTGACCCAGCGGCTGGGGCCAGGGCTGGTGGACGCAGCCAGGCTCAGCCCTCGG  
ACAACATGCATCTTCTCAGTGGAGCTGCAGCTGCCCCCAAGGCTGCAGCCCTGGCCACC  
TGGACAGGGGGAGCCCCCACCTGCCCGGAGGCACTGGCCATCGTCCTCTTTGGTGGAC  
AACCCCAACCAATGTGAGTGAGCTGGTGGTGGGGCCGCTGCCTCACCCCTCGTACATGC  
GGGATGTGACTGTGGAGCGTCACGGCGGGCCCCTGCCCTATCACCGTCGCCCCGGTGTGA  
GAGCTGAGTTTACACAGATGTGGAGGCATCTGAAAGAGGTGGAGTACCCAAGGCACCCA  
TCTTCTGTGCTCCACCTTCAACTACAATGGCTTACCCTGGCAGCTGTGCATGCCACCC  
CTCGGGGCTTGCCTCAGGGGACCGAGCTACCTGGATGGCCCTTACCATAACATCTCAG  
GGGTTGGTCTTTTCTTACCCCGTGGGGCTGGAGCTACTACTGGACCACAGGGCCCTGG  
ACCCTGCCCACTGGACTGTCCAGCAGGTCTTCTACCTTGGGCACTACTATGCAGACTTGG  
GCCAGTTGGAACGGGAGTTAAGTCTGGCCGGTTGGAAGTGGTTAGAGTCCCTCTACCTC  
CACCAATGGAGCTTCATCCCTGAGGTCTCGGAACTCTCCAGGTCTCTTCCCCCTCTTC  
AGTTCTCGCCCCAGGGTCCCAGTACAGTGTGCAAGGAAACCTGGTGGTATCCTCCCTCT  
GGTCATTTACCTTTGGCCATGGGGTGTTCAGCGGCCTGAGGATTTTTGATGTTCCGGTTC  
AGGGTGAGCGAATAGCCTATGAAGTCAGTGTCCAGGAGTGTGTATCTATCTATGGTGCCG  
ATTCACCAAGACGATGCTGACTCGCTATTTGGATAGCAGCTTTGGACTCGGCCGTAACA  
GCCGAGGCTTGGTGGGGGAGTGGACTGCCCTATCAAGCCACGATGGTGGACATCCATA  
TATTAGTGGCAAAGGGGAGTCCAGCTGCTTCCAGGGGCTGTGTGTATTTGAGGAAG  
CCAGGGACTGCCCTTGAAGGCACCACAATTACCTTCAAATCATTCTATGGTGGTT  
TGCCAGCTCAGCCCTTGTGGTCAAGTCTGTGTATCTGTGGCAACTATGACTACATTT  
GGGACTTTGTGTTGTACCCAAATGGGGCACTTGAAGGGCGGGTCCATGCCACGGTTATA  
TCAACACAGCTTCTGAAAGGGGAGAGGAGGGCCTCTCTTTGGGAACCGTGTGGGG  
AAAGAGTGTGGGAACGGTGCACACACATGCCTTCCACTCAAGCTGGACCTGGATGTGG  
CAGGGCTGAAAACTGGTGGTAGCTGAAGACGTGGTGTAAACCTGTGGCTGCCCCCT  
GGAACCCGGAGCACTGGCTACAGCGCCACAGCTGACTCGGCAGGTCTGGGAAAGGAGG  
ACCTGACAGCTTTTTCTTGGGAAGCCCCCTACCCGCTACCTCTACCTGGCTAGCAACC  
AGACTAATGCGTGGGGTACCAGCGGGTACCGAATCCAGATCCACAGCCCCCTTGGCA  
TACACATACCCCTGGAGAGTGACATGGAGAGGGCCCTCAGCTGGGGGAGATACCAGCTTG  
TGGTGACCAGAGAAAGGAGGAGGAGTACAGAGCAGTAGCATCTATACCAGAATGACA  
TCTGGACACCCACAGTTACCTTTGCTGACTTCATCAACAATGAAACCTCTTAGGAGAGG  
ATCTGGTGGCTTGGGTACAGCCAGCTTCTGCACATTCCTCCATGCCGAGGACATCCCAA  
ACACAGTACTCTGGGAAACAGAGTTGGCTTCTTGTCCGACCCTATAACTTCTTTGATG  
AGGACCCCTCCATCTTCTCCCTGGCAGTGTCTACTTTGAGAAGGGCCAGGATGCTGGGC  
TCTGCAGCATCAATCCTGTGGCCTGCCTCCCCGACCTGGCAGCTGTGTCCCGACTTAC  
CCCCCTTCTTACCACGGCTTCTAG

<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_009590 unedited            NNNNGGGGAGTCATATTTGTATACGACTCATATAGGCGGCCGCGNATTCATGCATCTCAA            NATAGTCTTGGCCTTCTGGCACTGTCCCTCATTACCATCTTTGCCCTGGCCTATGTTTT            GCTGACCAGCCCAGGTGGTTCCAGCCAGCCTCCCCACTGCCCCCTGTATCCCATAGGGC            CCAGCCCTGGCCACACCTGGCCAGAGCCAGCTGTTTGCAGACCTGAGCCGAGAGGAGTT            GACAGCTGTGATGCGCTTTCTGACCCAGCGGCTGGGCCAGGGCTGGTGGACGCAGCCCA            GGCTCAGCCCTCGGACAACCTGTCATCTTCTCAGTGGAGCTGCAGCTGCCCCCAAGGCTGC            AGCCCTGGCCCACTGGACAGGGGGAGCCCCACCTGCCCGGAGGCACTGGCCATCGT            CCTCTTTGGTGGACAACCCCAACCAATGTGAGTGAGCTGGTGGTGGGGCCGCTGCCTCA            CCCCTCGTACATGCGGGATGTGACTGTGGAGCGTCACGGCGGGCCCTGCCCTATCACCG            TCGCCCGTGTGAGAGCTGAGTTTACACAGATGTGGAGGCATCTGANAGAGGTGGAGCT            ACCCAAGGCACCCATCTTCTGTCTCCACCTTCAACTACAATGGCTCTACCCTGGCAGC            TGTGCATGCCACCCCTCGGGCTTGCCTCAGGGGACCGAGCTACCTGGATGGCCCTCTA            CCATACATCTCAGNGTTGGTCTTTTCTCACCCTGGGGCTGGAGCTACTACTGGACC            ACAGGGCCCTGGACCCTGCCACTGGACTGTCCAGCAGGTCTTCTACCTGGGCACTACTA            TGCAGACTTGGCCAAGTGGC</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_009590 unedited            NNGGGTGGCGCCATTGGGNNATGGCAACTTCCCAGNCCAGAAAAGCACTGGGGNAGGG            TCACAGGGATGCCACCCGGGATCTGTTCCAGAAACAGCTATGACCGCGGCCGAATCTAG            AGTCGAGCTAGAAGCCGTGGTAAGAGAAAAGGGGTAAGTCCGGGACACAGGCTGCCAGGT            CGGGGAGGCAGGCCACAGGATTGATGCTGCAGAGCCCAGCATCCTGGCCCTTCTCAAAGT            AGACACTGCCAGGGGAGAAGATGGAGGGTCTCATCAAAGAAGTTATAGGGTCGGAGCA            AGAAGCCAACTCTGTTCCCCAGAGTCACTGTGTTTGGGATGTCTCGGCATGGGGAAATGT            GCAGGAAGCTGGCTGTGACCCAAGCCACCAGATCCTCTCCTAAGAGGGTTTCATTGTTGA            TGAAGTCAGAAAGGTAAGTGTGGGTGTCCAGATGTCATTCTGGTGATAGATGCTACTGC            TCTGTGACTCCTCCTCTTTCTGCGGTACCACAAGCTGGTATCTCCCCAGCTGAGGG            CCCTCTCCATGTCACTCTCCAGGGGTATGTGTATGCCAAGGGGGCTGTGGATCTGGATTC            GGTACCCGCGCTGGTACCCACGCATTAGTCTGGTTGCTAGCCAGGTAGAGGTAGCGGG            GTAGGGGCTTCCAGGAAAAGCTGTCCAGGTCCTCTTTTCCAGGACCTGCCGAGTCCAG            CTGTGGGCGCTGTAGCCAGTGTCCGGGTTCCAGGGGGGAGCCACAGGGTTTAAACACC            ACGTCTTCAGCTACCACCAAGTTTTTCCAGCCCTGCCACATCCAGGTCCANCTTGAATGG            AAAGCATGTGTTTGCACCGTTCCAACATCTTTTCCCAAACGGTTCAAAAAGGAGCCCT            CCCTTTCCC</p>
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_009590
<b>Insert Size:</b>	2300 bp
<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>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
<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_009590.2</a> , <a href="#">NP_033720.2</a>
<b>RefSeq Size:</b>	2681 bp
<b>RefSeq ORF:</b>	2271 bp
<b>Locus ID:</b>	314
<b>UniProt ID:</b>	<a href="#">O75106</a>
<b>Cytogenetics:</b>	17q21.31
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	beta-Alanine metabolism, Glycine, serine and threonine metabolism, Metabolic pathways, Phenylalanine metabolism, Tyrosine metabolism
<b>Gene Summary:</b>	<p>Copper amine oxidases catalyze the oxidative conversion of amines to aldehydes and ammonia in the presence of copper and quinone cofactor. This gene shows high sequence similarity to copper amine oxidases from various species ranging from bacteria to mammals. The protein contains several conserved motifs including the active site of amine oxidases and the histidine residues that likely bind copper. It may be a critical modulator of signal transmission in retina, possibly by degrading the biogenic amines dopamine, histamine, and putrescine. This gene may be a candidate gene for hereditary ocular diseases. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) represents the longer transcript and encodes the longer isoform (b).</p>