

Product datasheet for **RG222991**

AOC2 (NM_009590) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AOC2 (NM_009590) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AOC2
Synonyms:	DAO2; RAO; SSAO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG222991 representing NM_009590
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCATCTCAAGATAGTCTGGCGTTCCTGGCACTGTCCCTCATTACCATCTTTGCCTGGCCTATGTTT
 TGCTGACCAGCCCAGGTGGTTCAGCCAGCCTCCCCTGCTGTATCCCATAGGGCCAGCCCTG
 GCCACACCCTGGCCAGAGCCAGCTGTTTGCAGACCTGAGCCGAGAGGAGTTGACAGCTGTGATGCGCTT
 CTGACCCAGCGGCTGGGGCCAGGGCTGGTGGACGACGCCAGGCTCAGCCCTCGGACAACTGCATCTTCT
 CAGTGGAGCTGCAGCTGCCCCCAAGGCTGCAGCCCTGGCCACCTGGACAGGGGAGCCCCCACCTGC
 CCGGGAGGCACTGGCCATCGTCTCTTTGGTGGACAACCCCAACCAATGTGAGTGAGCTGGTGGTGGG
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 GGCTTGGCCTCAGGGGACCGAGCTACCTGGATGGCCCTACCATAACATCTCAGGGGTTGGTCTTTTCC
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 GGTCTTCTACCTTGGGCACTACTATGCAGACTTGGGCCAGTTGGAACGGGAGTTTAACTCTGGCCGGTTG
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 CTTCTGCACATCCCCATGCCGAGGACATCCCAACACAGTACTCTGGGGAACAGAGTTGGCTTCTTG
 CTCCGACCCTATAACTTCTTTGATGAGGACCCCTCCATCTTCTCCCTGGCAGTGTCTACTTTGAGAAGG
 GCCAGGATGCTGGGCTCTGCAGCATCAATCCTGTGGCTGCCTCCCCGACCTGGCAGCCTGTGTCCCGGA
 CTTACCCCTTTCTTACCACGGCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG222991 representing NM_009590
 Red=Cloning site Green=Tags(s)

MHLKIVLAFLALSLITIFALAYVLLTSPGGSSQPPHCPSVSHRAQPWPHPGSQQLFADLSREELTAVMRF
 LTQRLGPGLVDAQAQPSDNCIFSVELQLPPKAAALAHLDKRGSPPPAREALAIIVLFGGQPQPNVSELVVG
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 GLRSGDRATWMLYHNISGVGLFLHPVGLELLLDHRALDPAHWTVQQVFYLGHYADLGQLEREFKSGRL
 EVVRVPLPPPNGASSLSRNSPGPLPPLQFSPQGSQYSVQGNL VVSSLWSFTFGHGVFSGLRIFDVRFQG
 ERIAYEVSQECVSIYGADSPKMLTRYLDSSFG LGRNSRGLVRGVDPCPYQATMVDIHLVGKGAQLLP
 GAVCVFEEAQGLPLRRHHNYLQNHFYGGLASSALVVRVSVSGNYDYIWFVLYPNGALEGRVHATGYIN
 TAFKGGEEGLLFGNRVGERVLGTVHTAFHFKLDL DVAGLKNWVAEDVVFKPVAAPWNPEHWLQRPQL
 TRQVLGKEDLTAFSLGSPLPRYL YLASNQTNAWGHQRGYRIQIHSPLGIHIPLESDMERALS WGRYQLVV
 TQRKEEESQSSSIYHQNDIWTPTVTFADF INNETLLGEDLVAVVTASFLHIPHAEDIPNTVTLGNRVGFL
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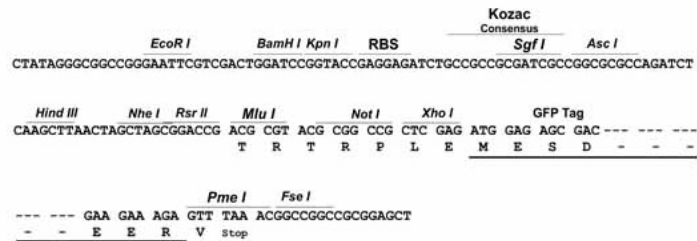
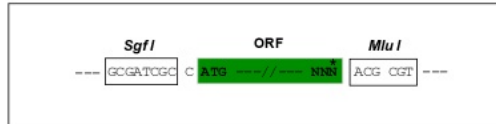
TRTRPLE - GFP Tag - V

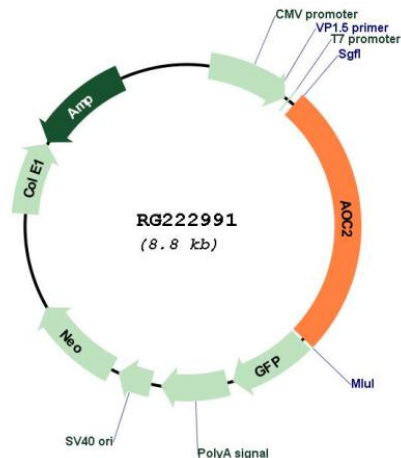
Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_009590

ORF Size: 2268 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_009590.4](#)

RefSeq Size: 2681 bp

RefSeq ORF: 2271 bp

Locus ID: 314

UniProt ID:	<u>O75106</u>
Cytogenetics:	17q21.31
Protein Families:	Transmembrane
Protein Pathways:	beta-Alanine metabolism, Glycine, serine and threonine metabolism, Metabolic pathways, Phenylalanine metabolism, Tyrosine metabolism
Gene Summary:	<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>