OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR211930

Aox1 (NM_009676) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aox1 (NM_009676) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aox1
Synonyms:	AI196512; AI255253; Ao; Aox-1; Aox-2; Aox2; Moro; Ro
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR211930 representing NM_009676
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACCCCATTCAGCTGCTCTTCTACGTGAATGGCCAGAAGGTGGTAGAAAAAAATGTCGATCCTGAAA
TGATGCTTTTACCATACCTGAGGAAGAATCTCCGACTCACAGGAACTAAGTATGGCTGTGGAGGCGGGGG
CTGTGGGGCCTGCACAGTGATGATCTCGCGGTACAACCCCAGCACCAAGGCGATCAGGCATCATCCTGTC
AATGCCTGTCTGACCCCCATCTGCTCTCTACATGGTACAGCAGTCACCACGGTAGAAGGCTTAGGCAACA
CCAGGACCAGGCTTCATCCTATTCAGGAGAGAATTGCCAAGTGTCACGGCACCCAGTGTGGATTCTGTAC
TCCTGGGATGGTGATGTCCATGTACGCACTGCTCAGGAACCATCCAGAGCCCACTCTAGATCAGTTAACT
GATGCCCTTGGTGGGAATCTGTGCCGCTGCACTGGATATAGGCCCATAATTGATGCCTGCAAGACTTTCT
GTAAAGCCTCTGGCTGCTGTCAAAGTAAAGAAAATGGGGTGTGCTGTTTGGATCAAGAAATAAATGGATT
GGCAGAATCCCAGGAAGAAGATAAGACAAGTCCAGAACTGTTCTCAGAAGAGGAATTTCTGCCACTGGAC
CCGACCCAAGAGCTGATATTTCCTCCCGAGCTAATGAGAATAGCTGAGAAACAGCCACCAAAGACCAGAG
TGTTTTATGGTGAGAGGGTGACATGGATTTCCCCCGTGACTCTGAAGGAACTTGTGGAAGCTAAATTCAA
GTATCCCCAGGCCCCTATTGTCATGGGGTACACTTCTGTGGGACCTGAAGTAAAGTTTAAAGGTGTCTTC
CACCCCATCATAATTTCTCCTGACAGAATTGAAGAGCTGGGTGTCATAAGCCAGGCCAGGGATGGGCTGA
CCCTGGGTGCTGGCCTCAGCCTGGATCAGGTGAAGGACATTCTGGCTGATATAGTCCAGAAGCTTCCAGA
AGAGAAGACACAGACATACCGTGCTCTCCTGAAGCACCTGAGAACTCTGGCTGGCTCCCAGATCAGGAAC
ATGGCTTCTCTAGGGGGCCACATTGTGAGCAGACATCTGGACTCAGATCTGAATCCCCTTCTGGCTGTGG
GTAACTGTACCCTCAACTTACTGTCCAAAGATGGAGAACGGCGGATCCCTTTAAGTGAAGAGTTTCTCCG
AAAGTGTCCTGAAGCAGATCTTAAGCCTCAGGAAGTCTTGGTCTCAGTGAACATCCCCTGGTCCAGGAAG
TGGGAGTTTGTGTCAGCCTTCCGTCAAGCGCAAAGACAACAGAATGCACTAGCAATAGTCAACTCCGGAA
TGAGAGTCCTTTTTAGAGAAGGAGGTGGCGTCATTGAAGAGTTATCCATTTTGTATGGAGGTGTCGGTTC
AACTATCATCAGTGCCAAGAACTCCTGTCAGAGACTCATTGGGAGGCCCTGGAATGAAGGGATGCTGGAC

View online »

ACAGCCTGTAGGCTGGTTTTGGATGAAGTCACCCTTGCAGCCTCAGCTCCTGGTGGGAAGGTGGAGTTCA
AGAGGACCCTCATCATCAGCTTCCTTTTCAAGTTCTACCTGGAGGTGTCACAGGGTTTGAAGAGGGAGGA
CCCAGGTCACTCTCCTAGCCTGGCAGGCAACCATGAGAGTGCTTTAGATGATCTTCATTCAAAACATCCC
TGGAGAACATTAACCCACCAGAATGTAGATCCAGCACAGCTGCCTCAGGACCCCATTGGACGTCCCATCA
TGCACCTTTCTGGGATTAAACATGCCACGGGCGAGGCCATCTACTGTGACGACATGCCTGCAGTAGACCG
GGAGCTTTTCCTCACTTTTGTAACAAGTTCAAGAGCACACGCTAAGATTGTGTCCATTGATCTGTCGGAA
GCTCTCAGCCTGCCTGGTGTGGTGGACATCATTACTGCAGATCATCTTCAGGAAGCAAACACCTTCGGCA
CAGAGACATTTCTGGCCACAGATGAGGTACACTGCGTGGGCCATCTTGTCTGTGCTGTGATTGCAGATTC
TGAGACACGGGCAAAGCAAGCGGCGAAGCAAGTGAAGGTGGTCTACCAAGACTTGGCGCCTCTGATCCTA
ACGATTGAGGAAGCTATACAACACAAGTCCTTCTTCAAGTCAGAACGGAAGCTGGAGTGTGGGAATGTTG
ACGAAGCATTTAAAATCGTTGATCAAATTCTTGAAGGTGAAATACACATAGGCGGCCAGGAACATTTTTA
TATGGAAACCCAAAGCATGCTTGTTGTTCCCAAAGGAGAGGATGGAGAGATTGACATCTATGTGTCTACA
CAGTTTCCCAAATATATACAGGATATAGTCGCTGCAACCTTGAAGCTCTCAGCCAACAAGGTCATGTGTC
ATGTAAGGCGTGTTGGCGGGGCATTTGGAGGGAAGGTGGGCAAGACCAGCATCTTGGCAGCCATCACTGC
ATTTGCTGCTAGCAAACACGGTCGCGCAGTCCGCTGCATTCTGGAACGAGGAGAAGACATGTTAATAACT
GGAGGCCGCCATCCTTACCTTGGAAAGTATAAAGCTGGATTCATGAATGACGGCAGAATCTTGGCCCTGG
ACGTGGAGCACTACTGCAATGGAGGGTGCTCCCTGGATGAGTCACTATGGGTGATAGAAATGGGGCTTCT
GAAGCTGGACAACGCTTACAAGTTTCCCAACCTACGCTGCCGGGGCTGGGCCTGCAGAACCAACCTTCCA
TCCAACACTGCTCTGCGTGGGTTTGGCTTTCCTCAGGCAGGGCTGGTCACCGAAGCCTGTATCACAGAAG
TGGCAATCAAATGTGGCCTGTCCCCTGAGCAGGTTCGAACCATAAATATGTACAAGCACGTTGATACTAC
CCATTACAAGCAAGAGTTCAGCGCCAAGGCCCTCTCTGAGTGCTGGAGAGAGTGCATGGCCAAGTGTTCC
TACTTTGAGAGGAAAGCAGCCATAGGAAAATTCAACGCAGAGAATTCCTGGAAGAAGAGAGGAATGGCTG
TGATTCCCCTGAAGTTTCCTGTGGGTATTGGATCAGTAGCCATGGGACAGGCAGCTGCCTTGGTTCATAT
TTATTTGGATGGCTCTGCACTGGTCTCTCATGGTGGAATTGAGATGGGGCAGGGTGTGCACACTAAAATG
ATTCAGGTGGTCAGCCGGGAACTAAGGATGCCGATGTCCAGTGTCCACCTGCGTGGGACAAGCACAGAAA
CCGTCCCCAACACAAATGCCTCTGGAGGCTCTGTGGTGGCAGATCTCAATGGACTGGCAGTAAAGGATGC
CTGTCAGACCCTTCTAAAACGCCTTGAACCCATCATCAGCAAGAATCCTCAGGGAACTTGGAAGGATTGG
GCCCAGACTGCTTTTGACCAAAGCATCAGTCTCTCGGCTGTTGGATATTTCAGGGGTTATGAGTCGAATA
TAGACTGGGAGAAAGGGGAAGGTCATCCCTTCGAATACTTTGTGTTTGGAGCTGCCTGCTCAGAGGTTGA
AATAGACTGCCTGACTGGGGACCATAAGAATATCAGAACAAACATCGTGATGGATGTTGGCCACAGCATA
AACCCAGCCCTTGACATAGGTCAGGTTGAAGGTGCATTTATTCAAGGAATGGGACTTTACACAATAGAGG
AGCTGAGTTACTCTCCTCAGGGCACTCTATACAGTCGTGGTCCAAACCAATACAAGATTCCTGCCATCTG
TGACATCCCCACGGAAATGCACATTTCTTTTTTGCCCCCATCTGAACACTCAAACACCCTGTATTCATCT
AAGGGCCTGGGAGAGTCTGGGGTGTTTCTGGGATGTTCGGTATTTTTTGCCATCCATGATGCAGTGAAGG
CAGCGCGGCAGGAGAGAGGCATCTCTGGACCATGGAAACTCAACAGTCCTCTGACTCCAGAGAAAATCAG
AATGGCCTGTGAAGATAAGTTCACCAAAATGATCCCAAGAGATGAGCCTGGATCCTATGTTCCCTGGAAC
ATACCTGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211930 representing NM_009676
Red=Cloning site Green=Tags(s)

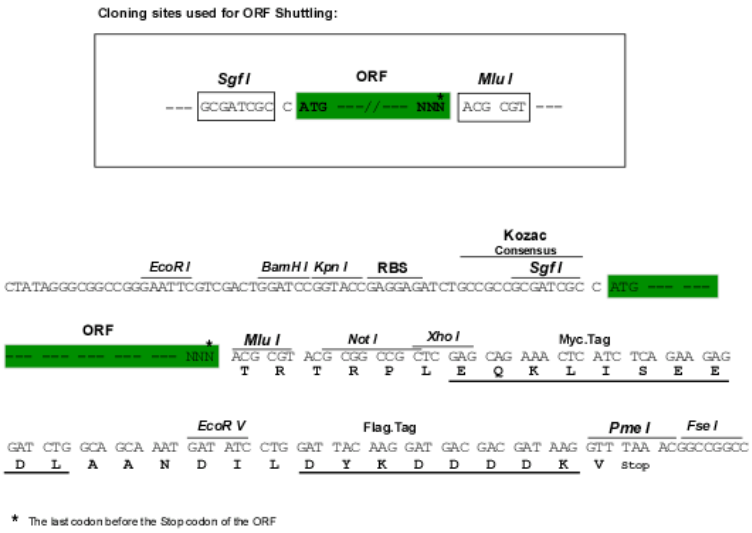
MDPIQLLFYVNGQKVVEKNVDPEMMLLPYLRKNLRLTGTKYGCGGGGCGACTVMISRYNPSTKAIRHHPV
NACLTPICSLHGTAVTTVEGLGNTRTRLHPIQERIAKCHGTQCGFCTPGMVMSMYALLRNHPEPTLDQLT
DALGGNLCRCTGYRPIIDACKTFCKASGCCQSKENGVCCLDQEINGLAESQEEDKTSPELFSEEEFLPLD
PTQELIFPPELMRIAEKQPPKTRVFYGERVTWISPVTLKELVEAKFKYPQAPIVMGYTSVGPEVKFKGVF
HPIIISPDRIEELGVISQARDGLTLGAGLSLDQVKDILADIVQKLPEEKTQTYRALLKHLRTLAGSQIRN
MASLGGHIVSRHLDSDLNPLLAVGNCTLNLLSKDGERRIPLSEEFLRKCPEADLKPQEVLVSVNIPWSRK
WEFVSAFRQAQRQQNALAIVNSGMRVLFREGGGVIEELSILYGGVGSTIISAKNSCQRLIGRPWNEGMLD
TACRLVLDEVTLAASAPGGKVEFKRTLIISFLFKFYLEVSQGLKREDPGHSPSLAGNHESALDDLHSKHP
WRTLTHQNVDPAQLPQDPIGRPIMHLSGIKHATGEAIYCDDMPAVDRELFLTFVTSSRAHAKIVSIDLSE
ALSLPGVVDIITADHLQEANTFGTETFLATDEVHCVGHLVCAVIADSETRAKQAAKQVKVVYQDLAPLIL
TIEEAIQHKSFFKSERKLECGNVDEAFKIVDQILEGEIHIGGQEHFYMETQSMLVVPKGEDGEIDIYVST
QFPKYIQDIVAATLKLSANKVMCHVRRVGGAFGGKVGKTSILAAITAFAASKHGRAVRCILERGEDMLIT
GGRHPYLGKYKAGFMNDGRILALDVEHYCNGGCSLDESLWVIEMGLLKLDNAYKFPNLRCRGWACRTNLP
SNTALRGFGFPQAGLVTEACITEVAIKCGLSPEQVRTINMYKHVDTTHYKQEFSAKALSECWRECMAKCS
YFERKAAIGKFNAENSWKKRGMAVIPLKFPVGIGSVAMGQAAALVHIYLDGSALVSHGGIEMGQGVHTKM
IQVVSRELRMPMSSVHLRGTSTETVPNTNASGGSVVADLNGLAVKDACQTLLKRLEPIISKNPQGTWKDW
AQTAFDQSISLSAVGYFRGYESNIDWEKGEGHPFEYFVFGAACSEVEIDCLTGDHKNIRTNIVMDVGHSI
NPALDIGQVEGAFIQGMGLYTIEELSYSPQGTLYSRGPNQYKIPAICDIPTEMHISFLPPSEHSNTLYSS
KGLGESGVFLGCSVFFAIHDAVKAARQERGISGPWKLNSPLTPEKIRMACEDKFTKMIPRDEPGSYVPWN
IPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9035_b12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

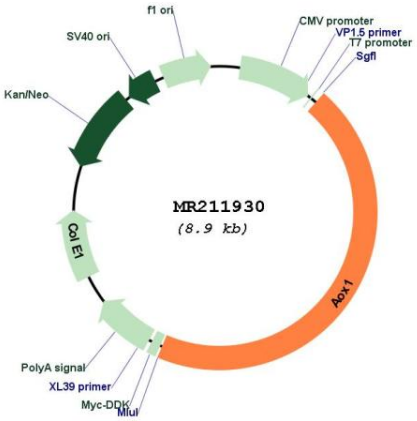


ACCN: NM_009676

ORF Size: 3999 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_009676.2, NP_033806.2
RefSeq Size:	4382 bp
RefSeq ORF:	4002 bp
Locus ID:	11761
UniProt ID:	O54754
Cytogenetics:	1 28.86 cM
MW:	147.1 kDa
Gene Summary:	Oxidase with broad substrate specificity, oxidizing aromatic azaheterocycles, such as N1-methylnicotinamide, N-methylphthalazinium and phthalazine, as well as aldehydes, such as benzaldehyde, retinal, pyridoxal, and vanillin. Plays a role in the metabolism of xenobiotics and drugs containing aromatic azaheterocyclic substituents. Participates in the bioactivation of prodrugs such as famciclovir, catalyzing the oxidation step from 6-deoxypenciclovir to penciclovir, which is a potent antiviral agent. Also plays a role in the reductive metabolism of the xenobiotic imidacloprid (IMI) via its nitroreduction to nitrosoguanidine (IMI-NNO) and aminoguanidine (IMI-NNH(2)). Is probably involved in the regulation of reactive oxygen species homeostasis. May be a prominent source of superoxide generation via the one-electron reduction of molecular oxygen. Also may catalyze nitric oxide (NO) production via the reduction of nitrite to NO with NADH or aldehyde as electron donor. May play a role in adipogenesis. Cannot use xanthine and hypoxanthine as substrate.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211930