

Product datasheet for MC224256

Aox1 (NM_009676) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Aox1 (NM_009676) Mouse Untagged Clone
Tag: Tag Free
Symbol: Aox1
Synonyms: AI196512; AI255253; Ao; Aox-1; Aox-2; Aox2; Moro; Ro
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC224256 representing NM_009676
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGACCCATTACAGCTGCTCTTCTACGTGAATGGCCAGAAGGTGGTAGAAAAAATGTCGATCCTGAAA
 TGATGCTTTTACCATACCTGAGGAAGAATCTCCGACTCACAGGAAGTAAAGTATGGCTGTGGAGGCGGGG
 CTGTGGGGCTGCACAGTGATGATCTCGCGGTACAACCCAGCACCAAGGCGATCAGGCATCATCTGTG
 AATGCCTGTCTGACCCCATCTGCTCTCTACATGGTACAGCAGTACCACGGTAGAAGGCTTAGGCAACA
 CCAGGACCAGGCTTCATCTATTGAGGAGAATTGCCAAGTGTACGGCACCCAGTGTGGATTCTGTAC
 TCCTGGGATGGTGTCCATGTACGACTGCTCAGGAACCATCCAGAGCCCACTCTAGATCAGTAACT
 GATGCCCTTGGTGGGAATCTGTGCCGCTGCACTGGATATAGGCCATAATTGATGCCTGCAAGACTTTCT
 GTAAGCCTCTGGCTGCTGTCAAAGTAAAGAAAATGGGGTGTGCTGTTGGATCAAGAAATAAATGGATT
 GGCAGAATCCCAGGAAGAAGATAAGACAAGTCCAGAAGTCTCAGAAGAGGAATTTCTGCCACTGGAC
 CCGACCAAGAGCTGATATTTCTCCGAGCTAATGAGAATAGCTGAGAAACAGCCACCAAGACCAGAG
 TGTTTTATGGTGAGAGGGTGACATGGATTTCCCGTACTGAAGGAAGTGTGGAAGCTAAATTTCAA
 GTATCCCGAGCCCTATTGTCATGGGGTACACTTCTGTGGGACCTGAAGTAAAGTTTAAAGGTGCTTTC
 CACCCCATCATAATTTCTCCTGACAGAATTGAAGAGCTGGGTGTCATAAGCCAGGCCAGGGATGGCTGA
 CCCTGGGTGCTGGCCTCAGCCTGGATCAGGTGAAGGACATTCTGGCTGATATAGTCCAGAAGCTTCCAGA
 AGAGAAGACACAGACATAACCGTCTCTCTGAAGCACCTGAGAACTCTGGCTGGCTCCAGATCAGGAAC
 ATGGCTTCTAGGGGGCCACATTGTGAGCAGACATCTGGACTCAGATCTGAATCCCCTTCTGGCTGTGG
 GTAAGTGTACCCTCAACTTACTGTCCAAGATGGAGAACGGCGGATCCCTTAAAGTGAAGAGTTTCTCCG
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 TGAGAGTCTTTTAGAGAAGGAGGTGGCGTCATTGAAGAGTTATCCATTTTGTATGGAGGTGTCGGTTC
 AACTATCATCAGTGCCAAGAAGTCTGTGAGAGACTCATTGGGAGGCCCTGGAATGAAGGGATGCTGGAC
 ACAGCCTGTAGGCTGGTTTTGGATGAAGTACCCTTGCAGCCTCAGTCTGGTGGGAAGGTGGAGTTCA



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AGAGGACCTCATCATCAGCTTCCTTTTCAAGTTCTACCTGGAGGTGTCACAGGTTTGAAGAGGGAGGA
 CCCAGGTCACTCTCCTAGCCTGGCAGGCAACCATGAGAGTGCTTTAGATGATCTTCATTCAAACATCCC
 TGGAGAACATTAACCCACCAGAAATGTAGATCCAGCACAGCTGCCTCAGGACCCCATTTGGACGTCCCATCA
 TGCACCTTTCTGGGATTAACATGCCACGGGCGAGGCCATCTACTGTGACGACATGCCTGCAGTAGACCG
 GGAGCTTTTCTCACTTTTGTAAACAAGTTCAAGAGCACACGCTAAGATTGTGCCATTGATCTGTCCGAA
 GCTCTCAGCCTGCCTGGTGTGGTGGACATCATTACTGCAGATCATCTTCAGGAAGCAAACACCTTCGGCA
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 GGAGGCCCCATCCTTACCTTGGAAAGTATAAAGCTGGATTTCATGAATGACGGCAGAATCTTGGCCCTGG
 ACGTGGAGCACTACTGCAATGGAGGGTGCCTCCCTGGATGAGTCACTATGGGTGATAGAAATGGGGCTTCT
 GAAGCTGGACAACGCTTACAAGTTTCCCAACCTACGCTGCCGGGGCTGGGCCTGCAGAACCAACCTTCCA
 TCCAACACTGCTCTGCGTGGGTTTGGCTTCTCAGGCAGGGCTGGTCACCGAAGCCTGTATCACAGAAG
 TGGCAATCAAATGTGGCCTGTCCCTGAGCAGGTTCAACCATAAATATGTACAAGCACGTTGATACTAC
 CCATTACAAGCAAGAGTTCAAGCGCAAGGCCCTCTCTGAGTGTGGAGAGAGTGCATGGCCAAGTGTTC
 TACTTTGAGAGGAAAGCAGCCATAGGAAAATCAACGCAGAGAATTCTTGGAAAGAAGAGAGGAATGGCTG
 TGATTTCCCTGAAGTTTCTGTGGTATTGGATCAGTAGCCATGGGACAGGCAGCTGCCTTGGTTTCATAT
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 ATTCAGGTGGTCAAGCCGGAAGTAAAGGATGCCGATGTCCAGTGTCCACCTGCGTGGGACAAGCACAGAAA
 CCGTCCCCAACACAAATGCCTCTGGAGGCTCTGTGGTGGCAGATCTCAATGGACTGGCAGTAAAGGATGC
 CTGTGACACCCTTCTAAAACGCCTTGAACCCATCATCAGCAAGAAATCCTCAGGGAAGTGGAAAGGATTGG
 GCCCAGACTGCTTTTACCAAAGCATCAGTCTCTCGGCTGTTGGATATTTAGGGGTTATGAGTCAATA
 TAGACTGGGAGAAAGGGGAAGGTCATCCCTCGAATACTTTGTGTTTGGAGCTGCCTGCTCAGAGGTTGA
 AATAGACTGCCTGACTGGGACCATAAGAATATCAGAACAACATCGTGATGGATGTTGGCCACAGCATA
 AACCCAGCCCTTGACATAGGTGAGGTTGAAGGTGCATTTATTCAAGGAATGGGACTTTACACAATAGAGG
 AGCTGAGTTACTCTCCTCAGGGCACTCTATACAGTCGTGGTCCAACCAATACAAGATTCCTGCCATCTG
 TGACATCCCCACGAAATGCACATTTCTTTTTGCCCCATCTGAACACTCAAACACCCTGTATTATCT
 AAGGGCCTGGGAGAGTCTGGGGTGTCTGGGATGTTCCGTATTTTTGCCATCCATGATGCAGTGAAGG
 CAGCGCGGAGGAGAGGCATCTCTGGACCATGGAAACTCAACAGTCTCTGACTCCAGAGAAAATCAG
 AATGGCCTGTGAAGATAAGTTCACCAAAATGATCCAAGAGATGAGCCTGGATCCTATGTTCCCTGGAAC
 ATACCTGTGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_009676
- Insert Size:** 4002 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_009676.2](#), [NP_033806.2](#)

RefSeq Size: 4382 bp

RefSeq ORF: 4002 bp

Locus ID: 11761

UniProt ID: [O54754](#)

Cytogenetics: 1 28.86 cM

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]