

## Product datasheet for **SC108847**

### Monoamine Oxidase B (MAOB) (NM\_000898) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Monoamine Oxidase B (MAOB) (NM_000898) Human Untagged Clone
Tag:	Tag Free
Symbol:	Monoamine Oxidase B
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000898, the custom clone sequence may differ by one or more nucleotides

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ATGAGCAACAAATGCGACGTGGTCTGGTGGGGGCGGCATCTCAGGTATGGCAGCAGCCAACTTCTGC
ATGACTCTGGACTGAATGTGGTTTCTGGAAGCCCGGACCGTGTGGGAGGCAGGACTTACACTCTTAG
GAACCAAAAGGTTAAATATGTGGACCTTGGAGGATCCTATGTTGGACCAACCCAGAATCGTATCTTGAGA
TTAGCCAAGGAGCTAGGATTGGAGACCTACAAAGTGAATGAGGTTGAGCGTCTGATCCACCATGTAAGG
GCAATCATACCCCTTCAGGGGGCCATCCCACCTGTATGGAATCCAATTACCTACTTAGATCATAACAA
CTTTTGGAGGACAATGGATGACATGGGGCGAGAGATCCGAGTGATGCCCCATGGAAGGCTCCCTTGCA
GAAGAGTGGGACAACATGACAATGAAGGAGCTACTGGACAAGCTCTGCTGGACTGAATCTGCAAAGCAGC
TTGCCACTCTCTTGTGAACCTGTGTGTCCTGACAGAGACCCATGAGGTCTCTGCTCTCTGGTCTCTGTG
GTATGTGAAGCAGTGTGGAGGCACAACAAGAATCATCTCGACAACAAATGGAGGACAGGAGAGAAATTT
GTGGGCGGATCTGGTCAAGTGAGTGAGCGGATAATGGACCTCCTTGGAGACCGAGTGAAGCTGGAGAGGC
CTGTGATCTACATTGACCAGACAAGAGAAAAATGTCCTTGTGGAGACCCTAAACCATGAGATGTATGAGGC
TAAATATGTGATTAGTGCTATTCTCTACTCTGGGCATGAAGATTCACCTCAATCCCCCTCTGCCAATG
ATGAGAAACCAGATGATCACTCGTGTGCCTTTGGGTTTCAGTCATCAAGTGTATAGTTTATTATAAGAGC
CTTTCTGGAGGAAAAAGGATTACTGTGGAACCATGATTATTGATGGAGAAGAAGCTCCAGTTGCCTACAC
GTTGGATGATACCAAACCTGAAGGCAACTATGCTGCCATAATGGGATTTATCCTGGCCCACAAGCCAGA
AAACTGGCACGTCTTACCAAAGAGGAAAGTTGAAGAACTTTGTGAACTCTATGCCAAGTTCTGGGTT
CCCTAGAAGCTCTGGAGCCAGTGCAATTATGAAGAAAAGAAGTGGTGTGAGGAGCAGTACTCTGGGGCTG
CTACACAATTATTTCCCCCTGGGATCCTGACTCAATATGGAAGGGTTCTACGCCAGCCAGTGGACAGG
ATTTACTTTGCAGGCACCGAGACTGCCACACACTGGAGCGGCTACATGGAGGGGGCTGTAGAGGCCGGGG
AGAGAGCAGCCCAGAGATCCTGCATGCCATGGGAAGATTCCAGAGGATGAAATCTGGCAGTCAGAACC
AGAGTCTGTGGATGTCCCTGCACAGCCCATCACCACCCTTTTTGGAGAGACATTTGCCCTCCGTGCCA
GGCCTGCTCAGGCTGATTGGATTGACCACCATCTTTTCAGCAACGGCTCTTGCTTCTGGCCCCAAAA
GGGGCTACTTGTGAGAGTCTAA

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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_000898 unedited  
 NCCGTCANAATTTGTATACGACTCATATAGGCGGCCGCGNATTCGGCACGAGGGCCANANA  
 AAACGGAGCAGCGGGCACCAGGGAGGCCTGGAACGGGGCGAGCGCCATGAGCAACAAATG  
 CGACGTGGTCTGGTGGGGGGCGGCATCTCANGTATGGCAGCAGCCAACTTCTGCATGA  
 CTCTTGACTGAATGTGGTTGTTCTGGAAGCCCGGACCGTGTGGGAGGCAGGACTTACAC  
 TCTTAGGAACCAAAAGGTTAAATATGTGGACCTTGGAGGATCCTATGTTGGACCAACCA  
 GAATCGTATCTTGAGATTAGCCAAGGAGCTAGGATTGGAGACCTACAAAGTGAATGAGGT  
 TGAGCGTCTGATCCACCATGTAAGGGCAAATCATACCCCTTCAGGGGGCCATCCACC  
 TGTATGGAATCCAATTACCTACTTAGATCATAACAACCTTTTGGAGGACAATGGATGACAT  
 GGGGCGAGAGATCCGAGTGATGCCATGGGAAGGCTCCCTTGCAGAAAAGTGGGACAA  
 CATGACAAATGAAGGAGCTACTGGACAAGCTCTGCTGGACTGAATCTGCAAAGCAGCTTGC  
 CACTCTTTTTGTGAACCTGGTGTGCTCACTGCAGAGACCAATTGAGGTCTCTGCTCTCTG  
 GTTCTGTGGGTATGGGAAAGCAATGGTTGGAGGCACAACAAGAATCATCTCGACACAAA  
 TGGAGGACAGGAGAGAAATTTGTGGCGGGATCTGGTCAAGTGAGTGAGCGGATAATGG  
 ACCTCCTTGGAGACCGAGTGAGCTGGGAGAGCCCTGTGATCTACATTGACCAGACAGAGA  
 AAATGGTCCTTGTGGAGACCCTAACCATGAGAGGNATGAGGCTAAAATGGGGAATTAGGG  
 CTATTCCTCTACTCTG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_000898 unedited  
 CGCGGCCCAATCTAGNATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTATGGGC  
 AATCAACTTTTATTTTAATTACCCAAGTGTGACTGGCCTTTGTATGAAGATACAATGG  
 AGGATACAAAAGGAAGAAGAGATAAAATTTCTACCATCAAAAAGTTAAAATCAGCTGGA  
 GACACACCGCACAAAACAGTAAGACTTAAGGCTATATACTGAGTAGCATTGAGAAGTGT  
 AAGACAACCTTAGCACAGAGTAAACCCACACAACGGGACACCATCGGTAACATGACAGGG  
 AGTGAAGGAGGATAATTGGGGAAAACATCCAAAGAGGGGGGAAAAGCGTTGGATTGTGT  
 TCTAGTCCCCCAGATACCAAGTGGCTTATTGGGGCTCTTAAGTAATTAAGTTCCACCTCTG  
 TGGGCTTCAGTTTGTCTAACTCTAAAACAGAAGGGGAGGACTAAATGGGCTTTACTGTCT  
 TTCAGCTGTAACAATACAGTATTCTAAGGACGAATGCAAAGAAGTGGGAAGGTGAGGCT  
 ATTACAGGTAAGAGGAAGAACAAGCACAAGCCCTAATGGTAGGAAAAAATTCATTCCTT  
 GTGCATGGCAAGGTGTGTTGTGGGGCAGCAAGAACCTTAAACAAGCCAATTTAACTATT  
 CTAAGATTTTGGGGCAATAAACTTGGAACTGGTGAACAGAACGCTAAGCCAGGTAA  
 GGGACACTAAGCAGGGGCCACAACGGAGAAAGAATACCATGTATTTTACAGTCAGAGTTG  
 GATTTATNTTATGCNTCCCGNCTNACTCACACTATTTGNCTCATGGAACCTACTGCNAC  
 TCTTTCCCAACTCTATCCCAATACAGTAGAGAGATGTGATACAGACACCTCTCTCTTAAC  
 TCTACAGTACCCTTTTGGGGGCAGAAGCAAGA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_000898

**Insert Size:**

2580 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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\\_000898.3](#), [NP\\_000889.3](#)

**RefSeq Size:** 2566 bp

**RefSeq ORF:** 1563 bp

**Locus ID:** 4129

**UniProt ID:** [P27338](#)

**Cytogenetics:** Xp11.3

**Domains:** Amino\_oxidase

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Arginine and proline metabolism, Drug metabolism - cytochrome P450, Glycine, serine and threonine metabolism, Histidine metabolism, Metabolic pathways, Phenylalanine metabolism, Tryptophan metabolism, Tyrosine metabolism

**Gene Summary:** The protein encoded by this gene belongs to the flavin monoamine oxidase family. It is an enzyme located in the mitochondrial outer membrane. It catalyzes the oxidative deamination of biogenic and xenobiotic amines and plays an important role in the metabolism of neuroactive and vasoactive amines in the central nervous system and peripheral tissues. This protein preferentially degrades benzylamine and phenylethylamine. [provided by RefSeq, Jul 2008]