

## Product datasheet for **RG205320**

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

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Monoamine Oxidase B (MAOB) (NM_000898) Human Tagged ORF Clone |
| Tag:                      | TurboGFP  |
| Symbol:                   | Monoamine Oxidase B   |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                       |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |



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**ORF Nucleotide Sequence:**

>RG205320 representing NM\_000898  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCAACAAATGCGACGTGGTCTGGTGGGGGCGGCATCTCAGGTATGCGAGCAGCCAACTTCTGC  
 ATGACTCTGGACTGAATGTGGTTGTTCTGGAAGCCGGGACCATGTGGAGGCAGGACTTACACTCTTAG  
 GAACAAAAGGTTAAATATGTGGACCTTGAGGATCCTATGTTGGACCAACCCAGAAATCGTATCTTGAGA  
 TTAGCCAAGGAGCTAGGATTGGAGACCTACAAAGTGAATGAGGTTGAGCGTCTGATCCACCATGTAAGG  
 GCAATCATACCCCTCAGGGGGCCATTCCACCTGTATGGAATCCAATTACCTACTTAGATCATAACAA  
 CTTTTGGAGGACAATGGATGACATGGGGCGAGAGATTGAGGTGATGCCCATGGAAGGCTCCCCTTGCA  
 GAAGAGTGGGACAACATGACAATGAAGGAGCTACTGGACAAGCTCTGCTGGACTGAATCTGCAAAGCAGC  
 TTGCCACTCTCTTTGTAACCTGTGTCACTGCAGAGACCCATGAGGTCTCTGCTCTCTGGTTCCTGTG  
 GTATGTGAAGCAGTGTGGAGGCACAACAAGAATCATCTCGACAACAAATGGAGGACAGGAGAGAAATTT  
 GTGGGCGGATCTGGTCAAGTGAAGTGAAGCGGATAATGGACCTCCTTGGAGACCGAGTGAAGCTGGAGAGGC  
 CTGTGATCTACATTGACCAGACAAGAGAAAATGTCCTTGTGGAGACCCTAAACCATGAGATGTATAGGC  
 TAAATATGTGATTAGTGCTATTCTCTACTCTGGGCATGAAGATTCACTTCAATCCCCCTCTGCCAATG  
 ATGAGAAACCAGATGATCACTCGTGTGCCTTTGGGTTCACTCAAGTGTATAGTTTATATAAAGAGC  
 CTTTCTGGAGGAAAAAGGATTACTGTGGAACCATGATTATTGATGGAGAAGAAGCTCCAGTTGCCTACAC  
 GTTGGATGATACCAAACCTGAAGGCAACTATGCTGCCAATGGGATTTATCCTGGCCACAAAGCCAGA  
 AAATGGCACGTCTTACCAAAGAGGAAAGGTTGAAGAACTTTGTGAACCTATGCCAAGGTTCTGGGTT  
 CCCTAGAAGCTCTGGAGCCAGTGCATTATGAAGAAAAGAAGTGGTGTGAGGAGCAGTACTGGGGGCTG  
 CTACACAACCTATTTCCCCCTGGGATCCTGACTCAATATGGAAGGTTCTACGCCAGCCAGTGGACAGG  
 ATTTACTTTGCAGGCACCGAGACTGCCACACTGGAGCGGCTACATGGAGGGGGCTGTAGAGGCCGGGG  
 AGAGAGCAGCCCGAGAGATCCTGCATGCCATGGGGAAGATTCCAGAGGATGAAATCTGGCAGTCAGAACC  
 AGAGTCTGTGGATGTCCCTGCACAGCCATCACCACCCTTTTTGGAGAGACATTTGCCCTCCGTGCCA  
 GGCCTGCTCAGGCTGATTGGATTGACCACCATTTTTAGCAACGGCTCTGGCTTCTGGCCACAAAA  
 GGGGGCTACTTGTGAGAGTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG205320 representing NM\_000898  
 Red=Cloning site Green=Tags(s)

MSNKCDVVVGGGISGMAAAKLLHDSGLNVVVLEARDHVGGRITYTLRNQKVKYVDLGGSYVGPTQNRILR  
 LAKELGLETYKNEVERLIHHVKGSYFPRGFPVWNPITYLDHNNFWRMTDDMGREIQSDAPWKAPLA  
 EEWDNMTMKELLDKLCWTESAKQLATL FVNLCVTAETHEVSALWFLWYVKQCGGTTRIIISTNNGQERKF  
 VGGSGQVSEIRIMDLLGDRVKLERPVIYIDQTRENVLVETLNHEMYEAKYVISAIPPTLGMKIHFNPLPM  
 MRNQMITRVPLGSVIKCIYVYKEPFWRKKDYCGTMIIDGEEAPVAYTLDDTKPEGNYAAIMGFILAHKAR  
 KLARLTKEERLKKLCEL YAKVLGSLEALEPVHYEKNWCEEQYSGGCTTYFPPGILTQYGRVLRQPVD R  
 IYFAGTETATHWSGYMEGAVEAGERAREILHAMGKIPEDIWQSEPVSDVPAQPITTTFLERHLPVSP  
 GLLRLIGLTTIFSATALGFLAHRGLLVRV

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_000898

**ORF Size:** 1560 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](#)

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

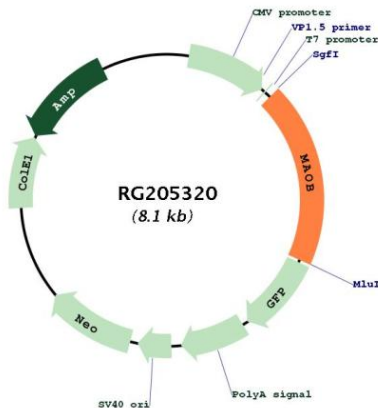
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**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:           | <a href="#">NM_000898.2</a>   |
| RefSeq Size:      | 2566 bp   |
| RefSeq ORF:       | 1563 bp   |
| Locus ID:         | 4129  |
| UniProt ID:       | <a href="#">P27338</a>  |
| 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] |

### Product images:



Circular map for RG205320