

Product datasheet for **RG207276**

Monoamine Oxidase A (MAOA) (NM_000240) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Monoamine Oxidase A (MAOA) (NM_000240) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Monoamine Oxidase A
Synonyms:	BRNRS; MAO-A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG207276 representing NM_000240
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGAATCAAGAGAAGGCGAGTATCGCGGGCCACATGTTTCGACGTAGTCGTGATCGGAGTGGCATT
 CAGGACTATCTGCTGCCAACTCTTGAAGTGAATATGACGTTAGTGTGGTTTTAGAAGCTCGGGACAG
 GGTGGAGGAAGAACATATACTATAAGGAATGAGCATGTTGATTACGTAGATGTTGGTGGAGCTTATGTG
 GGACCAACCCAAAACAGAATCTTACGCTTGTCTAAGGAGCTGGGCATAGAGACTTACAAAGTGAATGTCA
 GTGAGCGTCTCGTTCAATATGTCAAGGGGAAAACATATCCATTTCCGGGGCGCCTTCCACCAGTATGGAA
 TCCCATTCGATATTTGGATTACAATAATCTGTGGAGGACAATAGATAACATGGGAAGGAGATTCCAAC
 GATGCACCCTGGGAGGCTCAACATGCTGACAAAATGGGACGAAATGACCATGAAAGAGCTCATTGACAAA
 TCTGCTGGACAAAGACTGCTAGGCGTTTGCTTATCTTTTGTGAATATCAATGTGACCTCTGAGCCTCA
 CGAAGTGTCTGCCCTGTGGTTCTTGTGGTATGTGAAGCAGTGCAGGGCCACCCTCGGATATTCTCTGTC
 ACCAATGGTGGCCAGGAGCGGAAGTTGTAGGTGGATCTGGTCAAGTGAGCGAACGGATAATGGACCTCC
 TCGGAGACCAAGTGAAGCTGAACCATCCTGTCACTCACGTTGACCAGTCAAGTGACAACATCATCATAGA
 GACGCTGAACCATGAACATTATGAGTGCAAATACGTAATTAATGCGATCCCTCCGACCTTGACTGCCAAG
 ATTCACCTCAGACCAGAGCTTCCAGCAGAGAGAAAACAGTTAATTCAGCGGCTTCCAATGGGAGCTGTCA
 TTAAGTGCATGATGATTACAAGGAGGCCCTTCTGGAAGAAGAAGGATTACTGTGGCTGCATGATCATTGA
 AGATGAAGATGCTCCAATTTCAATAACCTTGGATGACACCAAGCCAGATGGGTCACTGCCTGCCATCATG
 GGCTTCATTCTTGCCCGAAAGCTGATCGACTTCTGTAAGCTACATAAGGAAATAAGGAAGAAGAAAATCT
 GTGAGCTCATGCCAAAGTGTGGGATCCCAAGAAGCTTACATCCAGTGCATTATGAAGAGAAGAAGAACTG
 GTGTGAGGAGCAGTACTCTGGGGCTGCTACACGGCTACTTCCCTCCTGGGATCATGACTCAATATGGA
 AGGGTGATTCTGCAACCCGTGGGCAGGATTTCTTTCGCGGCACAGAGACTGCCACAAAGTGAGCGGCT
 ACATGGAAGGGCAGTTGAGGCTGGAGAACGAGCAGCTAGGGAGGCTTAAATGGTCTCGGGAAGGTGAC
 CGAGAAAGATATCTGGGTACAAGAACCTGAATCAAAGGACGTTCCAGCGGTAGAAATCACCCACACCTTC
 TGGGAAAGAACCTGCCCTCTGTTTCTGGCCTGCTGAAGATCATTGGATTTCCACATCAGTAACTGCC
 TGGGGTTTGTGCTGTACAATAACAAGCTCTGCCACGGTCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG207276 representing NM_000240
 Red=Cloning site Green=Tags(s)

MENQEKASIAGHMFVIVGGISGLSAKLLTEYDVSVLVLEARDRVGGRTYTIIRNEHVDYVDVGGAYV
 GPTQNRILRLSKELGIETYKVNVSERLVQYVKGKTYPFRGAFPPVWNPIAYLDYNNLRWIDNMGKEIPT
 DAPWEAQHADKWDEMTMKELIDKICWTKTARRFAYLFVNIINVTSEPEVSALWFLWYVKQCGGTTRIFSV
 TNGGQERKFVGGSGQVSRIMDLLGDQVKNHPVTHVDQSSDNIIETLNHEHYECKYVINAIPPTLTAK
 IHFRPELPAERNQLIQRLLPMGAVIKCMMYYKEAFWKKDYCGCMIEDEDAPISITLDDTKPDGSLPAIM
 GFILARKADRLAKLHKEIRKKKICELYAKVLGSQEALHPVHYEENWCEEQYSGGCYTAYFPPGIMTQYG
 RVIRQPVGRIFFAETATKWSGYMEGAVEAGERAAAREVLNGLGKVTEKDIWVQEPESKDVPAVEITHTF
 WERNLPSVSGLLKIIGFSTSVTALGFVLYKYKLLPRS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_000240

ORF Size: 1581 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_000240.2](#), [NP_000231.1](#)

RefSeq Size: 4090 bp

RefSeq ORF: 1584 bp

Locus ID: 4128

UniProt ID: [P21397](#)

Cytogenetics: Xp11.3

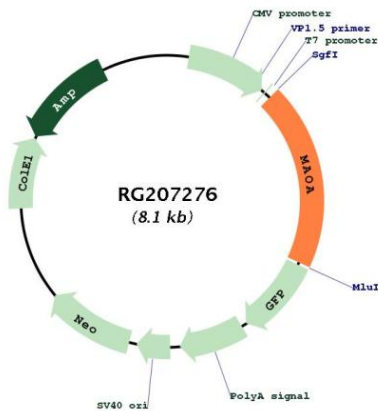
Domains: Amino_oxidase

Protein Families: Druggable Genome

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: This gene is one of two neighboring gene family members that encode mitochondrial enzymes which catalyze the oxidative deamination of amines, such as dopamine, norepinephrine, and serotonin. Mutation of this gene results in Brunner syndrome. This gene has also been associated with a variety of other psychiatric disorders, including antisocial behavior. Alternatively spliced transcript variants encoding multiple isoforms have been observed. [provided by RefSeq, Jul 2012]

Product images:



Circular map for RG207276