

Product datasheet for **RG233972**

Monoamine Oxidase A (MAOA) (NM_001270458) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Monoamine Oxidase A (MAOA) (NM_001270458) 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)
ORF Nucleotide Sequence:	>RG233972 representing NM_001270458 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGAAGGAGATTCCAACCTGATGCACCTGGGAGGCTCAACATGCTGACAAATGGGACAAAATGACCA
TGAAAGAGCTCATTGACAAAATCTGCTGGACAAAGACTGCTAGGCGTTTGCTTATCTTTTTGTGAATAT
CAATGTGACCTCTGAGCCTCACGAAGTGTCTGCCCTGTGGTTCTTGTGGTATGTGAAGCAGTGCGGGGGC
ACCACTCGGATATTCTCTGTACCAATGGTGGCCAGGAACGGAAGTTTGTAGGTGGATCTGGTCAAGTGA
GCGAACGGATAATGGACCTCCTCGGAGACCAAGTGAAGCTGAACCATCCTGTCACTCACGTTGACCAGTC
AAGTGACAACATCATCATAGAGACGCTGAACCATGAACATTATGAGTGCAAATACGTAATTAATGCGATC
CCTCCGACCTTGACTGCCAAGATTCACCTCAGACCAGAGCTTCCAGCAGAGAGAAACCAGTTAATTCAGC
GGCTTCCAATGGGAGCTGTCATTAAGTGCATGATGATTACAAGGAGGCCCTTCTGGAAGAAGAAGGATTA
CTGTGGCTGCATGATCATTGAAGATGAAGATGCTCCAATTTCAATAACCTTGGATGACACCAAGCCAGAT
GGGTCAGTGCCTGCCATCATGGGCTTATTCTTGCCCGGAAAGCTGATCGACTTGCTAAGCTACATAAGG
AAATAAGGAAGAAGAAAATCTGTGAGCTCTATGCCAAAGTGTGGGATCCCAAGAAGCTTACATCCAGT
GCATTATGAAGAGAAGAACTGGTGTGAGGAGCAGTACTCTGGGGCTGCTACACGGCCTACTTCCCTCCT
GGGATCATGACTCAATATGGAAGGTTGATTCGTCACCCGTGGGACAGATTTTCTTGGGGCACAGAGA
CTGCCACAAAGTGGAGCGCTACATGGAAGGGCAGTTGAGGCTGGAGAACGAGCAGTAGGGAGGTCTT
AAATGGTCTCGGGAAGGTGACCGAGAAAGATATCTGGGTACAAGAACCCTGAATCAAAGGACGTTCCAGCG
GTAGAAATCACCCACACCTTCTGGGAAAGAACCTGCCCTCTGTTTCTGGCCTGCTGAAGATCATTGGAT
TTCCACATCAGTAACTGCCCTGGGTTTGTGCTGTACAAATACAAGCTCCTGCCACGGTCT

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG233972 representing NM_001270458
 Red=Cloning site Green=Tags(s)

MGKEIPTDAPWEAQHADKWDKMTMKELIDKICWTKTARRFAYLFVNIINVTSEPEHSALWFLWYVKQCGG
 TTRIFSVTNGGQERKFVGGSGQVSEIRIMDLLGDQVKNHPVTHVDQSSDNIIEITLNHEHYECKYVINAI
 PPTLTAKIHFPELPAERNQLIQRLPMGAVIKMYYKEAFWKKKDYCGCMIIEDEDAPISITLDDTKPD
 GSLPAIMGFILARKADRLAKLHKEIRKKKICELYAKVLGSQEALHPVHYEKNWCEEQYSGGCYTAYFPP
 GIMTQYGRVIRQPVGRIFFAFAGTETATKWSGYMEGAVEAGERAAREVLNGLGKVTEKDIWVQEPESKDVPA
 VEITHTFWERNLPSVSGLLKIIIGFSTSVTALGFVLYKYKLLPRS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001270458

ORF Size: 1182 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_001270458.1](#), [NP_001257387.1](#)

RefSeq Size: 5438 bp

RefSeq ORF: 1185 bp

Locus ID: 4128

UniProt ID: [P21397](#)

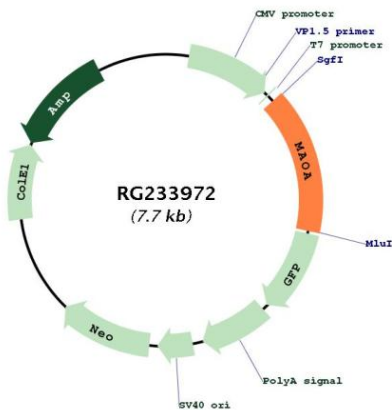
Cytogenetics: Xp11.3

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 RG233972