

Product datasheet for **RC207276**

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:	Myc-DDK
Symbol:	Monoamine Oxidase A
Synonyms:	BRNRS; MAO-A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC207276 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGAATCAAGAGAAGGCGAGTATCGCGGGCCACATGTTTCGACGTAGTCGTGATCGGAGTGGCATT
 CAGGACTATCTGCTGCCAACTCTTACTGAATATGACGTTAGTGTGGTTTTAGAAGCTCGGGACAG
 GGTGGAGGAAGAACATATACTATAAGGAATGAGCATGTTGATTACGTAGATGTTGGTGGAGCTTATGTG
 GGACCAACCCAAAACAGAATCTTACGCTTGTCTAAGGAGCTGGGCATAGAGACTTACAAAGTGAATGTCA
 GTGAGCGTCTCGTTCAATATGTCAAGGGGAAAACATATCCATTTCCGGGGCGCCTTCCACCAGTATGGAA
 TCCATTGCATATTTGGATTACAATAATCTGTGGAGGACAATAGATAACATGGGAAGGAGATTCCAAC
 GATGCACCCTGGGAGGCTCAACATGCTGACAAATGGGACGAAATGACCATGAAAGAGCTCATTGACAAAA
 TCTGCTGGACAAAGACTGCTAGGCGTTTGCTTATCTTTTGTGAATATCAATGTGACCTCTGAGCCTCA
 CGAAGTGTCTGCCCTGTGGTCTTGTGGTATGTGAAGCAGTGCAGGGGACCACCTCGGATATTCTCTGTC
 ACCAATGGTGGCCAGGAGCGGAAGTTGTAGGTGGATCTGGTCAAGTGAGCGAACGGATAATGGACCTCC
 TCGGAGACCAAGTGAAGCTGAACCATCCTGTCACTCACGTTGACCAGTCAAGTGACAACATCATCATAGA
 GACGCTGAACCATGAACATTATGAGTGCAAATACGTAATTAATGCGATCCCTCCGACCTTGACTGCCAAG
 ATTCACCTCAGACCAGAGCTTCCAGCAGAGAGAAAACAGTTAATTCAGCGGCTTCCAATGGGAGCTGTCA
 TTAAGTGCATGATGATTACAAGGAGGCCTTCTGGAAGAAGAAGGATTACTGTGGCTGCATGATCATTGA
 AGATGAAGATGCTCCAATTTCAATAACCTTGGATGACACCAAGCCAGATGGGTCACTGCCTGCCATCATG
 GGCTTCATTCTTGCCCGAAAGCTGATCGACTTCTAAGCTACATAAGGAAATAAGGAAGAAGAAAATCT
 GTGAGCTCTATGCCAAAGTGTGGGATCCCAAGAAGCTTACATCCAGTGCAATATGAAGAGAAGAAGTCT
 GTGTGAGGAGCAGTACTCTGGGGCTGCTACACGGCCTACTTCCCTCTGGGATCATGACTCAATATGGA
 AGGGTGATTCTGCAACCCGTGGGAGGATTTTCTTTCGCGGCACAGAGACTGCCACAAAGTGGAGCGCT
 ACATGGAAGGGGAGTTGAGGCTGGAGAACGAGCAGCTAGGGAGGCTTAAATGGTCTCGGGAAGGTGAC
 CGAGAAAGATATCTGGGTACAAGAACCTGAATCAAAGGACGTTCCAGCGGTAGAAATCACCCACACCTTC
 TGGGAAAGGAACCTGCCCTCTGTTCTGGCCTGCTGAAGATCATTGGATTTCCACATCAGTAACTGCC
 TGGGGTTGTGCTGTACAATAACAAGCTCTGCCACGGTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207276 protein sequence
 Red=Cloning site Green=Tags(s)

MENQEKASIAGHMFVIVGGISGLSAKLLTEYDVSVLVLEARDRVGGRTYTIIRNEHVDYVDVGGAYV
 GPTQNRILRLSKELGIETYKVNVSERLVQYVKGKTYPFRGAFPPVWNPYIAYLDYNNLWRTIDNMGEIPT
 DAPWEAQHADKWDEMTMKELIDKICWTKTARRFAYLFVNIINVTSEPHVSALWFLWYVKQCGGTTTRIFSV
 TNGGQERKFVGGSGQVSRIMDLLGDQVKNHPVTHVDQSSDNIIETLNHEHYECKYVINAIPPTLTAK
 IHFRPELPAERNQLIQRLPMGAVIKCMMYYKEAFWKKDYCGCMIIEDEDAPISITLDDTKPDGSLPAIM
 GFILARKADRLAKLHKEIRKKKICELYAKVLGSQEALHPVHYEKNWCEEQYSGGCYTAYFPPGIMTYG
 RVIRQPVGRIFFAGTETATKWSGYMEGAVEAGERAAREVLNGLGKVTEDIWVQEPESKDVPAVEITHTF
 WERNLPSVSGLLKIIGFSTSVTALGFVLKYKLLPRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6004_e08.zip

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_000240.4](#)

RefSeq Size: 5330 bp

RefSeq ORF: 1584 bp

Locus ID: 4128

UniProt ID: [P21397](#)

Cytogenetics: Xp11.3

Domains: Amino_oxidase

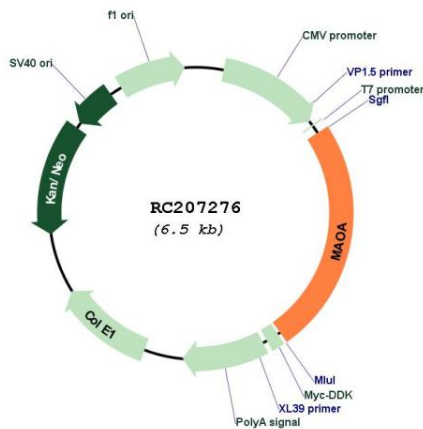
Protein Families: Druggable Genome

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

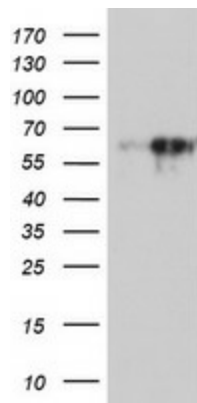
MW: 59.7 kDa

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 RC207276



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MAOA (Cat# RC207276, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAOA (Cat# [TA504266]).