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Product datasheet for SC126927

Monoamine Oxidase A (MAOA) (NM_000240) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Monoamine Oxidase A (MAOA) (NM_000240) Human Untagged Clone
Tag:	Tag Free
Symbol:	Monoamine Oxidase A
Synonyms:	BRNRS; MAO-A
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC126927 sequence for NM_000240 edited (data generated by NextGen Sequencing)

ATGGAGAATCAAGAGAAGGCGAGTATCGCGGGCCACATGTTCGACGTAGTCGTGATCGGA
GGTGGCATTTCAGGACTATCTGCTGCCAAACTCTTGACTGAATATGGCGTTAGTGTTTTG
GTTTTAGAAGCTCGGGACAGGGTTGGAGGAAGAACATATACTATAAGGAATGAGCATGTT
GATTACGTAGATGTTGGTGGAGCTTATGTGGGACCAACCCAAAACAGAATCTTACGCTTG
TCTAAGGAGCTGGGCATAGAGACTTACAAAGTGAATGTCAGTGAGCGTCTCGTTCAATAT
GTCAAGGGGAAAACATATCCATTTCGGGGCGCCTTTCCACCAGTATGGAATCCCATTGCA
TATTTGGATTACAATAATCTGTGGAGGACAATAGATAACATGGGGAAGGAGATTCCAACT
GATGCACCCTGGGAGGCTCAACATGCTGACAAATGGGACAAAATGACCATGAAAGAGCTC
ATTGACAAAATCTGCTGGACAAAGACTGCTAGGCGGTTTGCTTATCTTTTTGTGAATATC
AATGTGACCTCTGAGCCTCACGAAGTGTCTGCCCTGTGGTTCTTGTGGTATGTGAAGCAG
TGCGGGGGCACCACTCGGATATTCTCTGTCACCAATGGTGGCCAGGAACGGAAGTTTGTA
GGTGGATCTGGTCAAGTGAGCGAACGGATAATGGACCTCCTCGGAGACCAAGTGAAGCTG
AACCATCCTGTCACTCACGTTGACCAGTCAAGTGACAACATCATCATAGAGACGCTGAAC
CATGAACATTATGAGTGCAAATACGTAATTAATGCGATCCCTCCGACCTTGACTGCCAAG
ATTCACTTCAGACCAGAGCTTCCAGCAGAGAGAAACCAGTTAATTCAGCGTCTTCCAATG
GGAGCTGTCATTAAGTGCATGATGTATTACAAGGAGGCCTTCTGGAAGAAGAAGGATTAC
TGTGGCTGCATGATCATTGAAGATGAAGATGCTCCAATTTCAATAACCTTGGATGACACC
AAGCCAGATGGGTCACTGCCTGCCATCATGGGCTTCATTCTTGCCCGGAAAGCTGATCGA
CTTGCTAAGCTACATAAGGAAATAAGGAAGAAGAAAATCTGTGAGCTCTATGCCAAAGTG
CTGGGATCCCAAGAAGCTTTACATCCAGTGCATTATGAAGAGAAGAACTGGTGTGAGGAG
CAGTACTCTGGGGGCTGCTACACGGCCTACTTCCCTCCTGGGATCATGACTCAATATGGA
AGGGTGATTCGTCAACCCGTGGGCAGGATTTTCTTTGCGGGCACAGAGACTGCCACAAAG
TGGAGCGGCTACATGGAAGGGGCAGTTGAGGCTGGAGAACGAGCAGCTAGGGAGGTCTTA
AATGGTCTCGGGAAGGTGACCGAGAAAGACATCTGGGTACAAGAACCTGAATCAAAGGAC
GTTCCAGCGGTAGAAATCACCCACACCTTCTGGGAAAGGAACCTGCCCTCTGTTTCTGGC
CTGCTGAAGATCATTGGATTTTCCACATCAGTAACTGCCCTGGGGTTTGTGCTGTACAAA
TACAAGCTCCTGCCACGGTCTTGA

Clone variation with respect to NM_000240.2
891 g=>t;1410 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000240 unedited
GCGAATTCGGCACCAGCAGGAGCGTGTCAGCCAAAGCTTGGAGAATCAAGAGAAGGCGAG
TATCGCGGGCCACATGTTCGACGTAGTCGTGATCGGAGGTGGCATTTCAGGACTATCTGC
TGCCAAACTCTTGACTGAATATGGCGTTAGTGTTTTGGTTTTAGAAGCTCGGGACAGGGT
TGGAGGAAGAACATATACTATAAGGAATGAGCATGTTGATTACGTAGATGTTGGTGGAGC
TTATGTGGGACCAACCCAAAACAGAATCTTACGCTTGTCTAAGGAGCTGGGCATAGAGAC
TTACAAAGTGAATGTCAGTGAGCGTCTCGTTCAATATGTCAAGGGGAAAACATATCCATT
TCGGGGCGCCTTTCCACCAGTATGGAATCCCATTGCATATTTGGATTACAATAATCTGTG
GAGGACAATAGATAACATGGGGAAGGAGATTCCAACTGATGCACCCTGGGAGGCTCAACA
TGCTGACAAATGGGACAAAATGACCATGAAAGAGCTCATTGACAAAATCTGCTGGACAAA
GACTGCTANGCGGGTTGCTTATCTTTTTGTGAATATCAATGTGACCTCTGAGCCTCACGA
AGTGTCTGNCCTGTGGGTCTTTGTGGTATGTGAAGCAGTGCGGGGGCACCACTCNGATAT
TCTCTGTCACCAATGGTGGCCAGGAACCGAAGTTTGTANGTGGATCTGGTCAAGTGAGCG
AACGGA

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_000240 unedited
NNNTTGGTGGCAGTGCACCTTTTTAACAAACAAACAGTACCATACAGGGCAAAATCTTAC
TTCAGTGGCAAAGCACACACATAGGTATACTCCAACGTGTAGCACTGGGGCAAACTTCAG
ACATGGAACATTAGGCACCAAGTTCACAATCACACTAAACATAGTTCACAATCCTTCAAT
CCATACTCTTCAGTGGAGGATGAGGCCTTATTTAACAGTTAACTGGGACAGACAGATGAA
GTTTTAAAATCTAATTCTTGGCCTAACTGTGGAGTGGGGCTGACTCAGCCTTCAGAACTG
TGAAGTGGATGCCTTAACAGGGCCAAGATCTATCAGCCTCTTAAACTGACTTTCATTTCT
CTGGTTCAGAGAAAAAGCTTATGGTATCTTCACGTTGGATGAACTTGCATATCGTGAGAG
TCCTCAGCTCCAATTTCGTGTCTAGGCACATCTGGACTGGCATTCATTTTGATACCCAAT
CCATAGATTAATAGGGTTAATCTAATTAGAATAAATTAAATCGTTTTCCAAAAAGTTGAA
AAGGGTAAATCACATGAGNTCTTCAACATTCAAGACTTTAAATATGTTAGCAAACTGATT
ACTGTTCCAACTGTTGCCAGTTAAGAAGTTTAAATCAGCATTTTCCCAAAGGTGTGTCAA
GACTGAGTTAATCAGTTAGCTAATAGAAACAACTGCCATAGACTAGGGGTGAGATTTCTC
AAAGCAGTCTGATTTATATGGCGCAACTCCTTATGGACTGGAGCGTTTCCAATACATTCT
CAAAACTTCTTATTTACCTAAAATGCAAGGTAAAGAACCGTTGAAAAATGGCCCTCTTTA
GGTAGGCCAAACTTTGGAGATATTAGTTCCTCCACCAAGGGCCCCCACTTTGGTTGAATT
TTGGGAAAGGGTAAGGATAAAAACCCA
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Restriction Sites: NotI-NotI

ACCN: NM_000240

Insert Size: 4530 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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]
Transcript Variant: This variant (1) encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.