

Product datasheet for **SC127848**

Aromatase (CYP19A1) (NM_000103) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aromatase (CYP19A1) (NM_000103) Human Untagged Clone
Tag:	Tag Free
Symbol:	Aromatase
Synonyms:	ARO; ARO1; CPV1; CYAR; CYP19; CYPXIX; P-450AROM
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC127848 sequence for NM_000103 edited (data generated by NextGen Sequencing)

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ATGGTTTTGAAATGCTGAACCCGATACATTATAACATCACCAGCATCGTGCCTGAAGCC
ATGCCTGCTGCCACCATGCCAGTCTGCTCCTCACTGGCCTTTTTCTCTTGGTGTGGAAT
TATGAGGGCACATCCTCAATACCAGTCTGGCTACTGCATGGGAATTGGACCCCTCATC
TCCCACGGCAGATTCTGTGGATGGGGATCGGCAGTGCCTGCAACTACTACAACGGGTA
TATGGAGAATTCATGCGAGTCTGGATCTCTGGAGAGGAAACACTATTATCAGCAAGTCC
TCAAGTATGTTCCACATAATGAAGCACAATCATTACAGCTCTCGATTCCGGCAGCAAACCT
GGGCTGCAGTGCATCGGTATGCATGAGAAAGGCATCATATTTAACAACAATCCAGAGCTC
TGGAAAACAACCTCGACCCTTCTTTATGAAAAGCTCTGTCAGGCCCCCGCCTTGTTTCGTATG
GTCACAGTCTGTGCTGAATCCCTCAAAACACATCTGGACAGGTTGGAGGAGGTGACCAAT
GAATCGGGCTATGTGGACGTGTTGACCCTTCTGCGTCTGTGCATGCTGGACACCTTAAC
ACGCTCTTCTTGAGGATCCCTTTGGACGAAAGTGTATCGTGGTAAAATCCAAGTTTAT
TTTGATGCATGGCAAGCTCTCCTCATCAAACCAGACATCTTCTTTAAGATTTCTTGGCTA
TACAAAAAGTATGAGAAGTCTGTCAAGGATTTGAAAGATGCCATAGAAGTTCTGATAGCA
GAAAAAAGACGCAGGATTTCCACAGAAGAGAACTGGAAGAATGTATGGACTTTGCCACT
GAGTTGATTTTAGCAGAGAAACGTGGTGACCTGACAAGAGAGAATGTGAACCAAGTGCATA
TTGAAATGCTGATCGCAGCTCCTGACACCATGTCTGTCTTTTGTCTTCATGCTATTT
CTCATTGCAAAGCACCTAATGTTGAGAGGCAATAATAAAGGAAATCCAGACTGTTATT
GGTGAGAGAGACATAAAGATTGATGATATACAAAAATTAAGAGTATGAAAAACTTCATT
TATGAGAGCATGCGGTACCAGCTGTGCTGGACTTGGTCATGCGCAAAGCCTTAGAAGAT
GATGTAATCGATGGCTACCAGTGAAAAAGGGGACAAACATTATCCTGAATATTGGAAGG
ATGCACAGACTCGAGTTTTTCCCAAACCAATGAATTTACTCTTGAAAAATTTTGCAAAG
AATGTTCCCTTATAGGTACTTTCCAGCCATTTGGCTTTGGGCCCGTGGCTGTGCAGGAAAG
TACATCGCCATGGTATGATGAAAGCCATCCTCGTTACACTTCTGAGACGATTCCACGTG
AAGACATTGCAAGGACAGTGTGTTGAGAGCATAACAGAAGATACACGACTTGCCTTGCAC
CCAGATGAGACTAAAAACATGCTGGAAATGATCTTTACCCCAAGAACTCAGACAGGTGT
CTGGAACACTAG
    
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Clone variation with respect to NM_000103.3

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_000103 unedited
AGTTCACAATTGTATACGACNACTATAGGCGGCCGCGNAATTCGCACCAGGGCAAACAGG
AAGGTGAAGAAGAACTTATCCTATCAGGACGGAAGGTCTGTGCTCGGGATCTTCCAGAC
GTCGCGACTCTAAATTGCCCCCTCTGAGGTCAAGGAACACAAGATGGTTTTGAAATGCT
GAACCCGATACATTATAACATCACCAGCATCGTGCCTGAAGCCATGCCTGCTGCCACCTC
AATACCAGGTCTGCTACTGCATGGGAATTGGACCCCTCATCTCCACGGCAGATTCTCT
GTGGATGGGGATCGGCAGTGCCTGCAACTACTACAACCGGTATATGGAGAATTCATGCG
AGTCTGGATCTCTGGAGAGGAAACACTCATTATCAGCAAGTCTCAAGTATGTTCCACAT
AATGAAGCACAATCATTACAGCTCTCGATTCCGGCAGCAAACCTGGGCTGCAGTGCATCGG
TATGCATGAGATAGGCATCATATTTAACAACAATCCAGAGCTCTGGAAAACAACCTCGACC
CTTCTTTATGAAAGCTCTGTCAGGCCCGCCTTGTTCGTATGGTACAGTCTGTGCTGA
ATCCCTCANAACACATCTGGACAGGTTGGAGGATGTGACCAATGAATCGGGCTTGTGGNA
CGTGTGACCCTTCTGCGTCTGTGCATGCTGGACACCTTACACGCTCTTCTTGANGATC
CCTTTGGACGAAGTGCTATCGTGGNTAAATNCAAGGTATTNTGATGCATGGCAGCTCTCT
CATCAACAGAATCTCTTTAGATTTCTGCTTACAAAGTTGANAAGCGTCAAGATTGAAGAT
CCCTAAAGTCTGATACGAAAAGAGCAGATTNCCGAAAGACTGGANATGATGACTTGNCCT
GGATGTTTACNAAAACCTGTGACGA
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000103 unedited CGTTTCTTTTCCCCCCCCCAATGCTGGGGAGAAGAGCCAATTGTGAGTGTGTTGAATG ACATTCAGTAGAGATAGTTATATTGGCTATATTACACAAGTAAAGTGGTGTGTTGAAAGT TCCTACATTCATTTGATTTCTTTAGAAAGCGAATTCGAAGGTGTGCAATTTATCCATGA CCACTTACATTGATTCATGGAACCAAAATATGTTAGATCCCTCAGGTAACCGTTAAAA TTTTGAGGTTGGAGTTAAAAAAATACTTCAGGGGGTTTTACTTTTGGACCACCGTTTTT TTATTGGAGTGGGGCCCCCTAGGATCTTTGGGGCAGGGCGAAAAAAAAGGGGAAAA TATTTTCCGGGGGAAAGAATAATAGGGGTAAAGAGAGAGGCCCCCTCTAAGAGAG TGGACACCCCTGGGGGGGGGATTTTTTTTTTCCCAACAAACCAATCCCCTTGTTA TAAAGAAAACACCAAAATGGGGCAGAAAAACGCCGGTTCCTTCTGGTGTGGCGCCCC CCTCTTATTTGGCACAACAAAAAGGGGAGCACACCCCCCAGAGCTTCTTTTTT TTATTTATCTTAAAGAGGGCGCGCGCGAAGATGTCTTCTTCTAAAAAGAAAG AGGGCCGCGCCAATATTAATCCCCCCCCCTCTTAAATATTTTTTGGCCCCGT GGGGATAATATTAATTTGTTTCTCCCCCATCCACACCAGCCACACCACAAAAATA TTGTCTCANTGTGCCTCGGGCCGTGCGCGCGTCTACGACCAACACCGCGCGGAGAA AACACTTCTGCCTCAATAAATTTCTCCCCCCCCCACCATTTATTGTTCCACAAAACA AAAAGTTTGTGTTTCTTTTTTTAAATCGGCGCAAGACCCGAACGNTTTTACCACCT CCTAAACCACATAAAGATCTTTTTTTCGTTCCCCCCCCCCCCACAAAAAAAATTG TTCCTTCTCTCCCG
Restriction Sites:	NotI-NotI
ACCN:	NM_000103
Insert Size:	1512 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:	<ol style="list-style-type: none"> 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:	<u>NM_000103.2</u> , <u>NP_000094.2</u>
RefSeq Size:	3007 bp
RefSeq ORF:	1512 bp
Locus ID:	1588
UniProt ID:	<u>P11511</u>
Cytogenetics:	15q21.2

Domains:	p450
Protein Families:	Druggable Genome, P450
Protein Pathways:	Androgen and estrogen metabolism, Metabolic pathways
Gene Summary:	<p>This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and catalyzes the last steps of estrogen biosynthesis. Mutations in this gene can result in either increased or decreased aromatase activity; the associated phenotypes suggest that estrogen functions both as a sex steroid hormone and in growth or differentiation. Alternative promoter use and alternative splicing results in multiple transcript variants that have different tissue specificities. [provided by RefSeq, Dec 2016]</p> <p>Transcript Variant: This variant (1) represents the use of an alternate promoter and contains an alternate 5' exon (I.1), compared to variant 4. All variants encode the same protein. The 5' end of this transcript contains long terminal repeat (LTR) sequence, initiates from an LTR promoter and results in placenta-specific expression. (PMID: 19577618). 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.</p>