

Product datasheet for **RG205890**

Aromatase (CYP19A1) (NM_000103) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aromatase (CYP19A1) (NM_000103) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Aromatase
Synonyms:	ARO; ARO1; CPV1; CYAR; CYP19; CYPXIX; P-450AROM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG205890 representing NM_000103
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTTTTGAAATGCTGAACCCGATACATTATAACATCACCAGCATCGTCCTGAAGCCATGCCTGCTG
 CCACCATGCCAGTCTGCTCCTCACTGGCCTTTTTCTCTTGGTGTGGAATTATGAGGGCACATCCTCAAT
 ACCAGGTCCTGGCTACTGCATGGGAATTGGACCCCTCATCTCCACGGCAGATTCCTGTGGATGGGGATC
 GGCAGTGCCTGCAACTACTACAACCGGGTGTATGGAGAATTCATGCGAGTCTGGATCTCTGGAGAGGAAA
 CACTCATTATCAGCAAGTCTCAAGTATGTTCCACATAATGAAGCACAATCATTACAGCTCTCGATTCCG
 CAGCAAATTGGGCTGCAGTGCATCGGTATGCATGAGAAAGGCATCATATTTAACAACAATCCAGAGCTC
 TGGAAAACAACCTCGACCTTCTTTATGAAAGCTCTGTCAAGCCCGCCCTGTTTCGTATGGTCACAGTCT
 GTGCTGAATCCCTCAAAACACATCTGGACAGTGGAGGAGTGACCAATGAATCGGGCTATGTGGACGT
 GTTGACCTTCTGCGTGTGTCATGCTGGACACCTCTAACACGCTCTTCTTGAGGATCTCTTTGGACGAA
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 TCTTTAAGATTTCTGGCTATACAAAAAGTATGAGAAGTCTGTCAAGGATTTGAAAGATGCCATAGAAGT
 TCTGATAGCAGAAAAAGACGCAGGATTTCCACAGAAGAGAACTGGAAGAATGTATGGACTTTGCCACT
 GAGTTGATTTTAGCAGAGAAACGTGGTGACCTGACAAGAGAGAATGTGAACCAAGTGCATATTGAAATGC
 TGATCGCAGTCTCTGACACCATGTCTGTCTTTGTTCTTCATGCTATTTCTCATTGCAAAGCACCTAA
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 CAAAAATAAAAGTATGAAAAACTTCATTTATGAGAGCATGCGGTACCAGCCTGCTGGACTTGGTCA
 TGCCGAAAAGCCTTAGAAGATGATGTAATCGATGGCTACCCAGTAAAAAGGGGACAAACATTATCCTGAA
 TATTGGAAGGATGCACAGACTCGAGTTTTTCCCAAACCAATGAATTTACTCTTGAAAAATTTTGCAAAG
 AATGTTCTTATAGTACTTTACGCCATTTGGCTTTGGGCCCGTGGCTGTGCAGAAAAGTACATCGCCA
 TGGTGATGATGAAAGCCATCCTCGTTACTTCTGAGACGATTCCACGTGAAGACATTGCAAGGACAGTG
 TGTTGAGAGCATAACAGAAGATACAGACTTGTCTTGCACCCAGATGAGACTAAAAACATGCTGAAATG
 ATCTTTACCCCAAGAACTCAGACAGGTGTCTGGAACAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

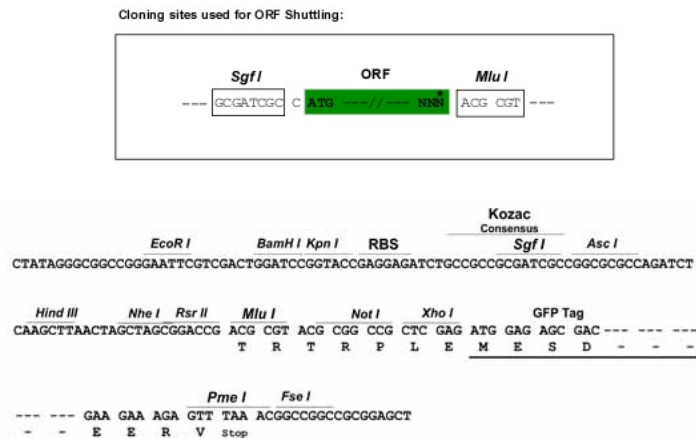
>RG205890 representing NM_000103
 Red=Cloning site Green=Tags(s)

MVLEMLNPIHYNITSIVPEAMPAATMPVLLL TGLFLLVWNYEGTSSIPGPYCMGIGPLISHGRFLWMGI
 GSACNYNRYVYGEFMRVWISGEETLIISKSSSMFHIMKHNHYSSRFGSKLGLQCIGMHEKGIIFNPNPEL
 WKTRPPFFMKALSGPGLVRMVTVCAESLKTHLDRLEEVNTESGYVDVLTLLRRVMLDTSNTLFLRISLDE
 SAIVVKIQGYFDAWQALLIKPDIFFKISWLYKYEKSVKDLKDAIEVLI AEKRRRISTEEKLEECMDFAT
 ELILA EKRGDLTRENVNQCILEMLIAAPDTMSVSLFFMLFLIAKHPNVEEAIKEIQTVIGERDIKIDDI
 QKLVKMFENFIYESMRYQPVDLVMRKALEDDVIDGYPVKGTNIIILNIGRMHRLEFFPKPNEFTLENFAK
 NVPYRYFPQFGFPRGCAGKYIAMVMMKAILVTLRRFHVKTLLQGQCVESIQKIHDLSLHPDETKNMLEM
 IFTPRNSDRCLEH

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000103

ORF Size: 1509 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_000103.2](#), [NP_000094.2](#)

RefSeq Size: 3007 bp

RefSeq ORF: 1512 bp

Locus ID: 1588

UniProt ID: [P11511](#)

Cytogenetics: 15q21.2

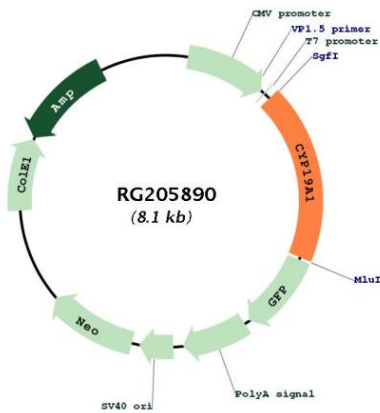
Domains: p450

Protein Families: Druggable Genome, P450

Protein Pathways: Androgen and estrogen metabolism, Metabolic pathways

Gene Summary: 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]

Product images:



Circular map for RG205890