

Product datasheet for **RC221358**

Aromatase (CYP19A1) (NM_031226) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aromatase (CYP19A1) (NM_031226) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aromatase
Synonyms:	ARO; ARO1; CPV1; CYAR; CYP19; CYPXIX; P-450AROM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221358 representing NM_031226
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTTTTGGAATGCTGAACCCGATACATTATAACATCACCAGCATCGTCCTGAAGCCATGCCTGCTG
 CCACCATGCCAGTCTGCTCCTCACTGGCCTTTTTCTCTTGGTGTGGAATTATGAGGGCACATCCTCAAT
 ACCAGGTCCTGGCTACTGCATGGGAATTGGACCCCTCATCTCCACGGCAGATTCTGTGGATGGGGATC
 GGCAGTGCCTGCAACTACTACAACCGGGTATATGGAGAATTCATGCGAGTCTGGATCTCTGGAGAGGAAA
 CACTCATTATCAGCAAGTCTCAAGTATGTTCCACATAATGAAGCACAATCATTACAGCTCTCGATTCCG
 CAGCAAACCTGGGCTGCAGTGCATCGGTATGCATGAGAAAGGCATCATATTTAACAACAATCCAGAGCTC
 TGGAAAACAACCTCGACCCTTCTTATGAAAGCTCTGTGAGCCCGCCCTTGTTCGATGGTCACAGTCT
 GTGCTGAATCCCTCAAAACACATCTGGACAGTGGAGGAGTGACCAATGAATCGGGCTATGTGGACGT
 GTTGACCTTCTGCGTGTGTCATGCTGGACACCTCTAACACGCTCTTCTTGAGGATCCCTTTGGACGAA
 AGTGCTATCGTGGTAAAATCCAAGTTATTTGATGCATGGCAAGCTCTCCTCATCAAACAGACATCT
 TCTTTAAGATTTCTGGCTATACAAAAAGTATGAGAAGTCTGCAAGGATTTGAAAGATGCCATAGAAGT
 TCTGATAGCAGAAAAAGACGCAGGATTTCCACAGAAGAGAACTGGAAGAATGTATGGACTTTGCCACT
 GAGTTGATTTTAGCAGAGAAACGTGGTGACCTGACAAGAGAGAATGTGAACCAAGTGCATATTGAAATGC
 TGATCGCAGTCTGACACCATGTCTGTCTTTTGTCTTCATGCTATTTCTCATTGCAAAGCACCTAA
 TGTTGAAGAGGCAATAATAAAGGAAATCCAGACTGTTATTTGGTGAAGAGACATAAAGATTGATGATATA
 CAAAAATAAAAGTATGAAAAACTTCATTTATGAGAGCATGCGGTACCAGCCTGTCTGGACTTGGTCA
 TGCGCAAAGCCTTAGAAGATGATGTAATCGATGGCTACCCAGTAAAAAGGGACAAACATTATCCTGAA
 TATTGGAAGGATGCACAGACTCGAGTTTTTCCCAAAACCAATGAATTTACTCTTGAAAAATTTGCAAAG
 AATGTTCTTATAGTACTTTACGCCATTTGGCTTTGGGCCCGTGGCTGTGCAGAAAAGTACATCGCCA
 TGGTGATGATGAAAGCCATCCTCGTTACTTCTGAGACGATTCCACGTGAAGACATTGCAAGGACAGTG
 TGTTGAGAGCATAACAGAAGATACAGACTTGTCTTGCACCCAGATGAGACTAAAAACATGCTGAAATG
 ATCTTTACCCCAAGAACTCAGACAGGTGTCTGGAACAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221358 representing NM_031226
 Red=Cloning site Green=Tags(s)

MVLEMLNPIHYNITSIVPEAMPAATMPVLLL TGLFLLVWNYEGTSSIPGPYCMGIGPLISHGRFLWMGI
 GSACNYYNRVYGEFMRVWISGEETLIISKSSSMFHIMKHNHYSSRFGSKLGLQCIGMHEKGIIFNNPEL
 WKTTTRPPFMKALSGPGLVRMVTVCAESLKTHLDRL EEVTVNESGYVDVLTLLRRVMLDTSNTLFLRIPLDE
 SAIVVKIQGYFDWQALLIKPDIFFKISWLYKYEKSVKDLKDAIEVLIAEKRRRISTEEKLEECMDFAT
 ELILA EKRGDLTRENVNQCILEMLIAAPDTMSVSLFFMLFLIAKHPNVEEAIKEIQTVIGERDIKIDDI
 QKLKVMENFIYESMRYQPVDLVMRKALEDDVIDGYPVKKGTNIILNIGRMHRLEFFPKPNEFTLENFAK
 NVPYRYFPFGFGRGCAGKYIAMVMMKAILVTLRRFHVKT LQGQCVESIQKIHDLSLHPDETKNMLEM
 IFTPRNSDRCLEH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6034_a11.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_031226

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_031226.3](#)

RefSeq Size: 3116 bp

RefSeq ORF: 1512 bp

Locus ID: 1588

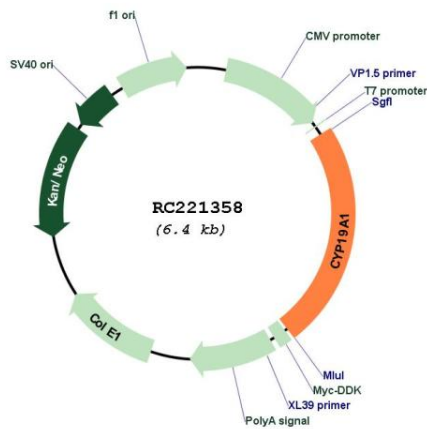
UniProt ID: [P11511](#)

Cytogenetics: 15q21.2

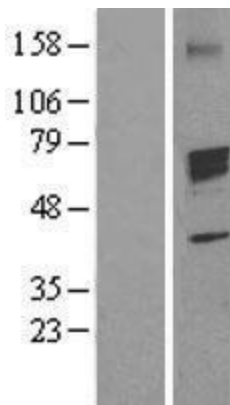
Domains: p450
Protein Families: Druggable Genome, P450
Protein Pathways: Androgen and estrogen metabolism, Metabolic pathways
MW: 57.7 kDa
Gene Summary:

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 RC221358



Western blot validation of overexpression lysate (Cat# [LY410595]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221358 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).