

Product datasheet for **RC225788**

CYP21A2 (NM_001128590) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP21A2 (NM_001128590) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CYP21A2
Synonyms:	CA21H; CAH1; CPS1; CYP21; CYP21B; P450c21B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC225788 representing NM_001128590
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCTCCTGGGCTGCTGCTGCTGCTGCCCTGCTGGCTGGCGCCCGCTGCTGTGGAAGTGGTGA
 AGCTCCGGAGCCTCCACCTCCCGCCTCTTGCCCGGGCTTCTTGACCTGCTGCAGCCCGACCTCCCCAT
 CTATCTGCTTGGCCTGACTCAGAAATTCGGGCCATCTACAGGCTCCACCTTGGGCTGCAAGACAAGCTG
 GTGTCTAGGAACTACCCGGACTGTCCTTGGGAGACTACTCCCTGCTCTGGAAAGCCACAAGAAGCTCA
 CCCGCTCAGCCCTGCTGCTGGGCATCCGTGACTCCATGGAGCCAGTGGTGGAGCAGCTGACCCAGGAGTT
 CTGTGAGCGCATGAGAGCCAGCCCGCACCCCTGTGGCCATTGAGGAGGAATCTCTCTCTCACCTGC
 AGCATCATCTGTTACCTCACCTTCGGAGACAAGATCAAGGACGACAATTAATGCCTGCCTATTACAAAT
 GTATCCAGGAGGTGTTAAAACTGGAGCCACTGGTCCATCCAAATTGTGGACGTGATCCCTTTCTCAG
 GTTCTTCCCAATCCAGGTCTCCGGAGGCTGAAGCAGGCCATAGAGAAGAGGGATCACATCGTGGAGATG
 CAGCTGAGGCAGCACAAGGAGAGCCTCGTGGCAGGCCAGTGGAGGGACATGATGGACTACATGCTCCAAG
 GGGTGGCGCAGCCGAGCATGGAAGAGGGCTCTGGACAGCTCCTGGAAGGGCACGTGCACATGGCTGCAGT
 GGACCTCTGATCGGTGGCACTGAGACCACAGCAAACACCCTCTCCTGGGCCGTGGTTTTTTTGCTTAC
 CACCCTGAGATTCAGCAGCGACTGCAGGAGGAGCTAGACCACGAAGTGGGCCCTGGTGCCTCCAGCTCCC
 GGGTCCCTACAAGACCGTGCACGGCTGCCCTTGCTCAATGCCACCATCGCCGAGGTGCTGCGCCTGCG
 GCCGTGTGCCCTTAGCCTTGGCCACCGCACACGGCCAGCAGCATCTCCGGCTACGACATCCCT
 GAGGGCACAGTCATCATTCCGAACCTCCAAGGCCACCTGGATGAGACGGTCTGGGAGAGGCCACATG
 AGTTCTGGCCTGATCGCTTCTGGAGCCAGGCAAGAATCCAGAGCTCTGGCCTTCGGCTTCGGTCCGCG
 CGTGTGCCTGGGCGAGCCGCTGGCGCGCCTGGAGCTTTCGTGGTGTGACCCGACTGCTGCAGGCCCTC
 ACGCTGCTGCCCTCCGGGACGCCTGCCCTCCCTGCAGCCCCTGCCCACTGCAGTGTATCCTCAAGA
 TGCAGCCTTTCCAAGTGCAGCCCGGGGGATGGGGGCCACAGCCCGGGCCAGAGCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC225788 representing NM_001128590
 Red=Cloning site Green=Tags(s)

MLLLGLLLLLPLLAGARLLWNWKLRLSLHPLPAPGFLHLLQPDLPYLLGLTQKFGPIYRLHLGLQDKL
 VSRNYPDLSLGDYSLWKAHKKLRTRALLLGRDSMEPVVEQLTQEFCEMRAPQGPVVAIEEFSLTTC
 SIICYLTFGDKIKDDNLMPAYKCIQEVLTWHSWISQIVDVIPLRFFPNPGLRRLKQAIKRDHIVEM
 QLRQHESLVAGQWRDMDYMLQGVAPSMEEGSQLLEGHVHMAAVDLLIGGTETTANTLSWAVVFLH
 HPEIQRLQEELDHELGPASSRVPYKDRARLPLLNATIAEVLRLRPVPLALPHRTTRPSSISGYDIP
 EGTVIIPNLQGAHLDETVERPHEFWPDRFLEPGKNSRALAFGCGARVCLGEPLARLELFFVLRLLQAF
 TLLPSGDALPSLQPLPHCSVILKMOPFQVRLQPRGMGAHSPGQSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8061_h02.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001128590

ORF Size: 1395 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_001128590.4](#)

RefSeq ORF: 1398 bp

Locus ID: 1589

UniProt ID: [P08686](#)

Cytogenetics: 6p21.33

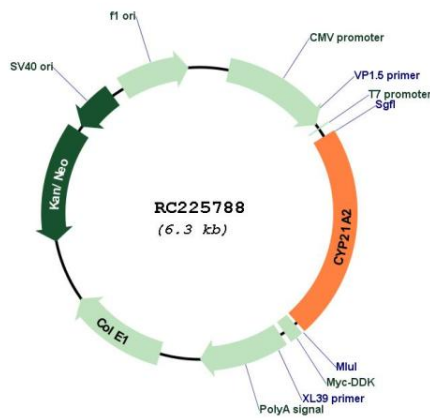
Protein Families: Druggable Genome, P450

Protein Pathways: C21-Steroid hormone metabolism, Metabolic pathways

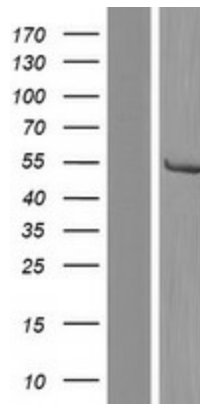
MW: 52.4 kDa

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 hydroxylates steroids at the 21 position. Its activity is required for the synthesis of steroid hormones including cortisol and aldosterone. Mutations in this gene cause congenital adrenal hyperplasia. A related pseudogene is located near this gene; gene conversion events involving the functional gene and the pseudogene are thought to account for many cases of steroid 21-hydroxylase deficiency. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC225788



Western blot validation of overexpression lysate (Cat# [LY426963]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225788 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).