

## Product datasheet for **SC125487**

### **CYP21A2 (NM\_000500) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CYP21A2 (NM_000500) Human Untagged Clone
Tag:	Tag Free
Symbol:	CYP21A2
Synonyms:	CA21H; CAH1; CPS1; CYP21; CYP21B; P450c21B
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_000500 edited  
 GTCAAGGGAGGCCCAAAACAGTCTACACAGCAGGAGGGATGGCTGGGGCTCTTGAGCTA  
 TAAGTGGCACCTCAGGGCCCTGACGGGCGTCTCGCCATGCTGCTCCTGGGCCTGTGCTG  
 CTGCTGCCCTGCTGGCTGGCGCCCGCTGCTGTGGAAGTGGTGGAAAGCTCCAGAGCCTC  
 CACCTCCCGCCTCTTGCCCGGGCTTCTTGCACTGCTGCAGCCGACCTCCCAATCTAT  
 GTGGTGGTGTGAACTCCAAGAGGACCATTTAGGAAGCCATGGTCAAAAAGTGGGCAGAC  
 TTTGCTGGCAGACCTGAGCCACTTACCTACAAGCTGGTGTCTAGGAACTACCCGGACCTG  
 TCCTTGGGAGACTACTCCCTGCTCTGAAAGCCCAAGAAGCTACCCGCTCAGCCCTG  
 CTGCTGGGCATCCGTGACTCCATGGAGCCAGTGGTGGAGCAGCTGACCCAGGAGTTCTGT  
 GAGCGCATGAGAGCCAGCCCGGACCCCTGTGGCCATTGAGGAGGAATTCTCTCTCCTC  
 ACCTGCAGCATCATCTGTACCTCACCTTCGGAGACAAGATCAAGGACGACAACCTAATG  
 CCTGCCTATTACAAATGTATCCAGGAGGTGTTAAAAACCTGGAGCCACTGGTCCATCCAA  
 ATTGTGGACGTGATTCCCTTTCTCAGGTTCTTCCCAATCCAGGTCTCCGGAGGTGAAG  
 CAGGCCATAGAGAAGAGGGATCACATCGTGGAGATGCAGCTGAGGCAGCACAAGGAGAGC  
 CTCGTGGCAGGCCAGTGGAGGGACATGATGGACTACATGCTCCAAGGGTGGCGCAGCCG  
 AGCATGGAAGAGGGCTCTGGACAGCTCCTGGAAGGGCACGTGCACATGGCTGCAGTGGAC  
 CTCCTGATCGGTGGCACTGAGACCACAGCAAACACCCCTCTCCTGGGCCGTGGTTTTTTT  
 GTTACCACCCCTGAGATTCAGCAGCGACTGCAGGAGGAGCTAGACCACGAACTGGGCCCT  
 GGTGCCTCCAGCTCCCGGGTCCCTACAAGGACCGTGCACGGCTGCCCTTGTCTCAATGCC  
 ACCATCGCCGAGGTGCTGCGCTGCGGCCGTTGTGCCCTTAGCCTTGCCCAACCGCACC  
 ACACGGCCAGCAGCATCTCCGGCTACGACATCCCTGAGGGCACAGTCATCATTCCGAAC  
 CTCCAAGGCGCCACCTGGATGAGACGGTCTGGGAGAGGCCACATGAGTTCTGGCCTGAT  
 CGCTTCCTGGAGCCAGGCAAGAACTCCAGAGCTCTGGCCTTCGGCTGCGGTGCCCGCGTG  
 TGCTGGGCGAGCCGCTGGCGCGCTGGAGCTTTCGTGGTGTGACCCGACTGTGCGAG  
 GCCTTCACGCTGCTGCCCTCCGGGGACGCCCTGCCCTCCCTGCAGCCCTGCCCACTGC  
 AGTGTCTCCTCAAGATGCGACCTTTTCAAGTGCAGGCTGCAGCCCGGGGGATGGGGCC  
 CACAGCCCGGGCCAGAGCCAGTGTGGGGCAGGACCGATGCCAGCCGGGTACCTCAGTTT  
 CTCCTTTATTGCTCCTGTACGAACCCCTCCCTCCCCCTGTAACACAGTGTGCGAGA  
 TCGCTGGCAGAGAAGGCTTCTCCAGCGGCTGGTGGTGAAGGACCTGGCTCTTCTCTC  
 GGGGCGACCCCTCAGTGTCTGGCAGTCACTGGGGTGGCAGAGAGGTGGGCAGCAGCTC  
 AGCCTCCCCCGCTGGGAGCGAAAGTTTCTTGGTCTCAGCTTCAATTCGGTGAAGGGCA  
 CCGAGAATCGAAGCCCTTCCAGTGGTACCAGCTCACTCCCTGGGAAAGGGTGTCAAG  
 AGAGAGTCAAAGCCGGATGTCCCATCTGCTTCCCGTCCCTT

- Restriction Sites:** Please inquire
- ACCN:** NM\_000500
- Insert Size:** 2000 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).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_000500.5</a> , <a href="#">NP_000491.2</a>
<b>RefSeq Size:</b>	2114 bp
<b>RefSeq ORF:</b>	1488 bp
<b>Locus ID:</b>	1589
<b>UniProt ID:</b>	<a href="#">P08686</a>
<b>Cytogenetics:</b>	6p21.33
<b>Domains:</b>	p450
<b>Protein Families:</b>	Druggable Genome, P450
<b>Protein Pathways:</b>	C21-Steroid hormone metabolism, Metabolic pathways
<b>Gene Summary:</b>	<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 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]</p> <p>Transcript Variant: This variant (1) encodes the longer isoform (a).</p>