

## Product datasheet for **MC202251**

### **Cyp1a2 (NM\_009993) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cyp1a2 (NM_009993) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cyp1a2
Synonyms:	CP12; Cyp1a1; CYPIA2; P450-3
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**Fully Sequenced ORF:** >BC054827 sequence for NM\_009993  
 ACTGACTCCCACAACCTCTGCCAGTCTCCAGCCCCTGCCCTTCAGTGGTACAGATGGCGTTCTCCCAGTAC  
 ATCTCCTTAGCCCCAGAGCTGCTACTGGCCACTGCCATCTTCTGTTTAGTGTCTGGATGGTCAGAGCCT  
 CAAGGACCCAGGTTCCCAAAGGCCTGAAGAATCCACCCGGACCCTGGGGCTTGCCCTTCATTGGGCACAT  
 GCTGACTGTGGGAAGAACCACACCTGTCACTGACACGGCTGAGTCAGCAGTATGGGGACGTGCTGCAG  
 ATCCGCATCGGCTCCACTCCTGTGGTGGTGTGAGCGGCCTGAACACCATCAAGCAGGCCCTGGTGGGC  
 AGGGAGATGACTTCAAGGGCCGACCAGACCTCTACAGCTTACACTTATCACTAACGGCAAGAGCATGAC  
 TTTCAACCCAGACTCTGGACCCGTGTGGGCTGCCCGCCGCGCCTGGCCAGGATGCCCTGAAGAGCTTC  
 TCCATAGCCTCGGACCCGACGTACGATCCTCTTGCTATTTGGAGGAGCACGTGAGCAAGGAGGCTAACCC  
 ATCTCGTCAGCAAGCTTCAAGGCGATGGCAGAGGTTGGCCACTTCAACCCAGTCAGCCAGGTGGTGGGA  
 ATCGGTGGCTAACGTCATTGGTGCCATGTGCTTTGGGAAGAACTCCCCCGAAGAGCGAGGAGATGCTG  
 AACATCGTGAATAACAGCAAGGACTTTGTGGAGAATGTCACCTCAGGGAATGCAGTGGACTTCTCCCGG  
 TCCTGCGTACCTGCCAACCCGGCCCTCAAGAGGTTTAAAGACCTTCAATGATAACTTCGTGCTGTTTCT  
 GCAGAAAAGTGTCCAGGAGCACTACCAAGACTTCAACAAGAACAGTATCCAAGACATCACAAGTGCCTG  
 TCAAGCACAGCGAGAATAACAAGACAATGGCGGTCTCATCCCCGAGGAGAAGATTGTCAACATTGTCA  
 ATGACATCTTTGGAGCTGGCTTTGACACAGTCACCACAGCCATCACCTGGAGCATTGCTACTTGTGAC  
 ATGGCCTAACGTGCAGAGGAAGATCCATGAGGAGCTGGACACGGTGGTTGGCAGGGATCGGCAACCACGG  
 CTTTCTGACCGTCCCCAGCTGCCATATCTAGAGGCCTTCATCCTGGAGATCTACCGATACACATCCTTTG  
 TCCCTTACCATCCCCACAGCACAACGAGGGACACCTCACTGAATGGCTTCCACATTCCTCAAGGAGCG  
 CTGTATCTACATAAACAGTGGCAGGTCAACCATGATGAGAAGCAGTGGAAAGACCCCTTTGTGTTCCGC  
 CCAGAGCGGTTTCTTACCAATAACAACCTCGGCCATCGACAAGACCAGAGCGAGAAGGTGATGCTCTTCG  
 GCTTGGGAAAGCGCCGGTGCATTGGGGAGATCCCGCCAAAGTGGGAAGTCTTCTCTTAGCCATCCT  
 GCTGCAGCATCTGGAGTTTAGTGTGCCACCGGTGTGAAGTGGACCTGACACCCAACATGGGTTGACC  
 ATGAAGCCCGGGACCTGTGAACAGTCCAGGCATGGCCACGCTTTTCCAAGTGAAGATTGTCGAGGCATC  
 GGTGGGGCCGTCACCTTGTCTTTCTTTCTGTTTTAAAAAAAAAAAAAAAAAACAGCTTTTTTTTTTTTGA  
 GAGATACAATTCTTTCCCATTTAATTCATCTCCAAGCAATTTACAATAGTGTCTATCATGTTACCCCC  
 ATAACCCATACTATTAGGACTTATGATTTAAGATTCTCTACCTGTCTTGCTTGCCGCACCTCATGC  
 TAATCTAGTTTTGACTCAATAGATTTGCCTACTCTGGCTGTCTCATATAAATCGAATGAATTATAAAAA AAAAAAAAAA

**Restriction Sites:** RsrII-NotI

**ACCN:** NM\_009993

**Insert Size:** 1542 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:**

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:** [BC054827](#), [AAH54827](#)

RefSeq Size: 1900 bp

RefSeq ORF: 1542 bp

Locus ID: 13077

UniProt ID: [P00186](#)

Cytogenetics: 9 31.3 cM

**Gene Summary:** A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids, steroid hormones and vitamins. Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase). Catalyzes the hydroxylation of carbon-hydrogen bonds. Exhibits high catalytic activity for the formation of hydroxysteroids from estrone (E1) and 17beta-estradiol (E2), namely 2-hydroxy E1 and E2. Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis. May act as a major enzyme for all-trans retinoic acid biosynthesis in the liver. Catalyzes two successive oxidative transformation of all-trans retinol to all-trans retinal and then to the active form all-trans retinoic acid. Primarily catalyzes stereoselective epoxidation of the last double bond of polyunsaturated fatty acids (PUFA), displaying a strong preference for the (R,S) stereoisomer. Catalyzes bisallylic hydroxylation and omega-1 hydroxylation of PUFA. May also participate in eicosanoids metabolism by converting hydroperoxide species into oxo metabolites (lipoxygenase-like reaction, NADPH-independent). Plays a role in the oxidative metabolism of xenobiotics. Catalyzes the N-hydroxylation of heterocyclic amines and the O-deethylation of phenacetin. Metabolizes caffeine via N3-demethylation.[UniProtKB/Swiss-Prot Function]