

Product datasheet for **RN209639**

Cyp4x1 (NM_145675) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyp4x1 (NM_145675) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Cyp4x1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN209639 representing NM_145675
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAGGCTCCTGGCTGGAGAATCGTGGGCGGCCCTTACACCTGGCTTTGGTGTCTGCCTGGCGC
 TGGTGCTGATGCAGGCCGTGAAGCTCTACCTGAGAAGACAGAGGCTGCTGCGCGACCTACGCCCTTCCC
 GGGTCTACCGCCACTGGCTCCTGGGACACCAGAAGTTTCTTCAGGAGGATAATATGGAGAAGCTTGAC
 GAGATTGTCAAAGAGTACCCTTGCCTTCCCCTGCTGGGTAGGACCCTTCCAAGCATTTTTCTACATCT
 ATGACCCAGACTATGCAAAGATTTTTCTGAGCAGAACAGACCCAAAGACCCAGTACCTGCACCAGCTCAT
 GACTCCCTTTCTGGAAGAGGACTCCTGAATTTAGATGGGCCAGGTGGTTCCAACACCGCTGCCTCCTG
 ACTCCTGCGTTCCATCAGGACATCTAAAACCATGTGTGGACATGATGGCCACTCTGTGAACATGATGC
 TGGATAAATGGGAGAAGACGTGGACCACGCAGGAAACAACCATCGAGGTTTTTGAACACATTAACCTGAT
 GACCCTGGACATAATAATGAAATGTGCTTTTGGCCAGGAGACCAACTGCCAGATAAACGGCACCTATGAG
 TCTTATGTGAAGCAACATTTGAACTTGGTGAATCATATCTTCTCGCTTGTACAATTTCTGGCATCATC
 ATGACATAATTTTCAAACCTCAGTCTTAAGGGCCACTGCTTCCAGGAGTTAGGCAAAGTGATACATCAATG
 CACAGAAAAGATTATCCAGGACAGAAAAGAAACCTCAAGGATCAAGTAAATCAGGATGACACTCAAACA
 TCTCAAAATTTTCTGGATATTGTTCTTTCTGCCAGGCTGGAGATGAAAAGGCCTTCTCAGATGCTGACC
 TTCGGTCTGAGGTGAACACCTTCATGTGGGCAGGACACGACGCCTCTGCAGCTAGCATCTCCTGGCTCCT
 TTAAGTCTGGCTCTGAACCTGAGCATCAAGACAGATGCCGGACAGAGATCAGGAGCATTCTGGGAGAT
 GGGTCTTCCATCACCTGGGAACAGCTGGATGAGATACCTTACACTACAATGTGCATCAAGGAGACACTCC
 GCTTGATTCTCCATCCCATCCATCTCCAGGAACTCAGCAAACCCCTTACCCTCCAGATGGACACTC
 GCTGCCTGCAGGAATGACTGTGGTCTTAGTATTTGGGGTCTCCACCACAATCCTGCTGTCTGGAAGAC
 CCAAAGGTCTTTGACCCTTTGAGATTTACTAAGGAGAATTCTGAACAGAGACACCCTGCGCCTTCTAC
 CATTCTCCAGTGGTCCAAGGAACTGCATCGGGCAGCAGTTTGCCATGCTGGAGTTAAAGGTGGCCATTGC
 CTTGACTCTGCTCCGCTTCCGAGTAGCTGCAGACCTCACCGGCCTCCTGCCTTCTCCAGCCACACTGTG
 CTCAGACCCAAGCATGGGATCTATTTGCACCTGAAGAACTCCCTGAATGT**AG**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_145675
- Insert Size:** 1524 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: [NM_145675.1](#), [NP_663708.1](#)

RefSeq Size: 1524 bp

RefSeq ORF: 1524 bp

Locus ID: 246767

UniProt ID: [Q8K4D6](#)

Cytogenetics: 5q35

Gene Summary: A cytochrome P450 monooxygenase that selectively catalyzes the epoxidation of the last double bond of the arachidonoyl moiety of anandamide, potentially modulating endocannabinoid signaling. Has no hydroxylase activity toward various fatty acids, steroids and prostaglandins. 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 (CPR; NADPH-ferrihemoprotein reductase). [UniProtKB/Swiss-Prot Function]