

## Product datasheet for **SC107944**

### Cytochrome P450 2C8 (CYP2C8) (NM\_000770) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 2C8 (CYP2C8) (NM_000770) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cytochrome P450 2C8
Synonyms:	CPC8; CYP2C8DM; CYPIIC8; MP-12/MP-20
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC107944 sequence for NM\_000770 edited (data generated by NextGen Sequencing)

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ATGGAACCTTTTGGTCTGGTCTGTGTCTCTCTTTTATGCTTCTCTTTTCACTCTGG
AGACAGAGCTGTAGGAGAAGGAAGCTCCCTCCTGGCCCCACTCCTCTTCTATTATTGGA
AATATGCTACAGATAGATGTTAAGGACATCTGCAAACTTTTCCACCAATTTCTCAAAGTC
TATGGTCTGTGTTCCCGTGTATTTGGCATGAATCCCATAGTGGTGTTCATGGATAT
GAGGCAGTGAAGGAAGCCCTGATTGATAATGGAGAGGAGTTTTCTGGAAGAGGCAATTC
CCAATATCTCAAAGAATTACTAAAGGACTTGAATCATTTCAGCAATGGAAGAGATGG
AAGGAGATCCGGCGTTTTCTCCCTCACAACCTTGCAGGATTTTGGGATGGGGAAGAGGAGC
ATTGAGGACCGTGTCAAGAGGAAGCTCACTGCCTTGTGGAGGAGTTGAGAAAAACCAAG
GCTTACCCTGTGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCC
GTTGTTTTCCAGAAACGATTTGATTATAAAGATCAGAATTTTCTACCCTGATGAAAAGA
TTCAATGAAAACCTCAGGATTCTGAACTCCCCATGGATCCAGGTCTGCAATAATTTCCCT
CTACTCATTGATTGTTTTCCAGGAACTCACAACAAAGTGCTTAAAAATGTTGCTTTACA
CGAAGTTACATTAGGGAGAAAGTAAAAGAACACCAAGCATCACTGGATGTTAACAATCCT
CGGGACTTTATCGATTGCTTCTGATCAAAATGGAGCAGGAAAAGGACAACCAAAAGTCA
GAATTCATATTGAAAACCTGGTTGGCACTGTAGCTGATCTATTTGTTGCTGGAACAGAG
ACAACAAGCACCCTCTGAGATATGGACTCCTGCTCCTGCTGAAGCACCAGAGGTCA
GCTAAAGTCCAGGAAGAGATTGATCATGTAATTGGCAGACACAGGAGCCCTGCATGCAG
GATAGGAGCCACATGCCTTACACTGATGCTGTAGTGCACGAGATCCAGAGATACAGTGAC
CTTGTCACCCACCGGTGTGCCCATGCAGTGACCACTGATACTAAGTTCAGAACTACCTC
ATCCCCAAGGGCACAACCATAATGGCATTACTGACTTCCGTGCTACATGATGACAAGAA
TTTCTAATCCAAATATCTTTGACCCCTGGCCACTTTCTAGATAAGAATGGCAACTTTAAG
AAAAGTGACTACTTCATGCCTTTCTCAGCAGGAAAACGAATTTGTGCAGGAGAAGGACTT
GCCCGCATGGAGCTATTTTTATTCTAACCACAATTTTACAGAATTTAACCTGAAATCT
GTTGATGATTTAAGAACCTCAATACTACTGCAGTTACCAAAAGGATTGTTTCTCTGCCA
CCCTCATACCAGATCTGCTTCATCCCTGTCTGA
    
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Clone variation with respect to NM\_000770.3

**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_000770 unedited
GTCGGAATTTGTATACGACTCCTATAGGCGGCCCTAATTAGCAGGGAGTGTATAAAA
ACTTTGGAGTGAAGCTCACAGCTGTCTTAATAAGAAGAGAAGGCTTCAATGGAACCTTT
TGTGGTCTGGTCTGTGTCTCTCTTTTATGCTTCTCTTTTCACTCTGGAGACAGAGCTG
TAGGAGAAGGAAGCTCCCTCCTGGCCCCACTCCTTCTTCTATTATTGGAAATATGCTACA
GATAGATGTTAAGGACATCTGCAAACTTTTCCACCAATTTCTCAAAGTCTATGGTCTGT
GTTCCACCGTGTATTTGGCATGAATCCCATAGTGGTGTTCATGGATATGAGGCAGTGAA
GGAAGCCCTGATTGATAATGGAGAGGAGTTTTCTGGAAGAGGCAATTCCCAATATCTCA
AAGAATTAATAAGGACTTGAATCATTTCAGCAATGGAAGAGATGGAAGGAGATCCG
GCGTTTTCTCCCTCACAACCTTGCAGGATTTTGGGATGGGGAAGAGGAGCATTGAGGACCG
TGTTCAAGAGGAAGCTCACTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCTTACCCTG
TGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGTTCCCGNTGTTTTCC
AGAAACGATTTGATTATTAAGATCCAGATTTTCTACCCTGATGAAAAGATTCAATGAAA
ACTTCAGGATTCTGAACTCCCCATGGATCCAGGTCTGNCATAATTTCCCTCTACCATTGG
ATTGTTTTCCAGGAACTCACAACANAGTGCTTTAAAAATGTTGCTTTACACCGAAGNTA
CATTAGGNNAGAAAGGTAAAAGAACACCAAGGCATCCCTGGATGTTAACAATCCTCGGGAC
TTAATCGATTGCTTCTGATCAAATGGAGCAGGGAAGGAN
    
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<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_000770 unedited            TTTAGCTTGGACCCGCGGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTTTTCA            GCAATTAATAACACTTTTTATTTAGCACATTCACAAAAAATGGATCTAAATTATCATT            CATTAATCACTTTTCTGTGTTTTACAGGGATAACATATTA AAAAGTCAGCATTAGAAAAG            TATTAGCATATGCAGCAATTAATACAAGTGTACAGAGTATGAATAATTGCAGATATATT            TGTGCAGTGACCTGAACAACCTCTCCTTAATGGAGTTGGATGCTTATGGGATATTGAGTG            AATGGGAAGATTTGATGAGAGGTCAGAGAAGACATAATAGTGGGAATGTCCTTGATAAAA            AAAGAGTTGCAGGTGATAGCAGATCGGCAGCCAGATGGGCTAGCATTCTTCAGACAGGGA            TGAAGCAGATCTGGTATGAGGGTGGCAGAGAAACAATCCCTTTGGTAACTGCAGTAGTAT            TGAGGTTCTTTAAATCATCAACAGATTTTCAGGTTAAAGTTCTGTAAAATTGTGGTTAGAA            ATAAAAATAGCTCCATGCGGGCAAGTCCTTCTCCTGCACAAATTCGTTTTCTGTGAGA            AAGGCATGAAGTAGTCACTTTTCTTAAAGTTGCCATTCTATCTAGAAAGTGCCAGGGT            CAAAGATATTTGGATTAGGAAATCTTTGTCATCATGTAGCACGGGAAGTCAGTAATGCC            ATTANTGGTTGTCCCTTNGGGATGANGGTAGTTTCTGAACTTAGTATCAGTGGTCACTG            CATGGGGCACACCGGTGGGGACAAGGTCCTGTATCTCTGGATCTCGTGCCTAAGCATC            AGTGTAGGCATGTGGGCTTCTCCTGCTGCAGGGCTTCTGTGTCTGCATTACTGATCATCT            CTCTGACTTTACTGGACCTCTGGTGCTCACAGAACAGAGTCTTTCAAAGGGGCTTGT            GGGCTT</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000770
<b>Insert Size:</b>	2000 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>Components:</b>	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_000770.2</a> , <a href="#">NP_000761.2</a>

RefSeq Size:	1851 bp
RefSeq ORF:	1473 bp
Locus ID:	1558
UniProt ID:	<a href="#">P10632</a>
Cytogenetics:	10q23.33
Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
Protein Pathways:	Arachidonic acid metabolism, Drug metabolism - cytochrome P450, Linoleic acid metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism
Gene Summary:	<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 its expression is induced by phenobarbital. The enzyme is known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, benzo(a)pyrene, 7-ethoxy coumarin, and the anti-cancer drug taxol. This gene is located within a cluster of cytochrome P450 genes on chromosome 10q24. Several transcript variants encoding a few different isoforms have been found for this gene. [provided by RefSeq, Nov 2010]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (a).</p>