

## Product datasheet for **SC309790**

### Cytochrome b5 (CYB5A) (NM\_148923) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome b5 (CYB5A) (NM_148923) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cytochrome b5
Synonyms:	CYB5; MCB5; METAG
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_148923 edited  
 CCTCGTGCCGAATTCGGCACGAGGGGGAATGTCCCGGGTGGAGCTGGCTGAGTCGCGCG  
 CTCTGCTCCACCCGACGGGGCTGTGTGTGCTGGGCCTGGCTCGCGGCGAACCGAGATGGC  
 AGAGCAGTCGGACGAGGCCGTGAAGTACTACACCCTAGAGGAGATTCAGAAGCACAAACCA  
 CAGCAAGAGCACCTGGCTGATCCTGCACCACAAGGTGTACGATTTGACCAAATTTCTGGA  
 AGAGCATCCTGGTGGGAAGAAGTTTTAAGGGAACAAGCTGGAGGTGACGCTACTGAGAA  
 CTTTGAGGATGTCGGGCACTCTACAGATGCCAGGAAAATGTCCAAAACATTCATCATTGG  
 GGAGCTCCATCCAGATGACAGACCAAAGTTAAACAAGCCTCCGGAACTCTTATCACTAC  
 TATTGATTCTAGTTCCAGTTGGTGGACCAACTGGGTGATCCCTGCCATCTCTGCAGTGGC  
 CGTCGCCCTTGATGTATCGCCTATACATGGCAGAGGACTGAACACCTCCTCAGAAGTCAGC  
 GCAGGAAGAGCCTGCTTTGGACACGGGAGAAAAGAAGCCATTGCTAACTACTTCAACTGA  
 CAGAAACCTTCACTTGAAAACAATGATTTTAATATATCTCTTTCTTTTCTTCCGACATT  
 AGAAACAAAACAAAAGAAGTGTCTTTCTGCGCTCAAATTTTTTCGAGTGTGCCTTTTTA  
 TTCATCTACTTTATTTTGATGTTTCCTTAATGTGTAATTTACTTATTATAAGCATGATCT  
 TTTAAAAATATATTTGGCTTTTAAAGTAAAAAAAAAAAAAAAAAAAA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_148923 unedited ACGACTCATATAGGGCGGCCGATTTCGGCACGAGGCCTCGTGCCGAATTCGGCACGAGG GGGGAATGTCCCGGGTGGAGCTGGCTGAGTCGCGCGCTCTGCTCCACCCGACGGGGCTGT GTGTGCTGGGCCTGGCTCGCGCGAACCAGATGGCAGAGCAGTCGGACGAGGCCGTGAA GTACTACACCCTAGAGGAGATTCAGAAGCACAACCACAGCAAGAGCACCTGGCTGATCCT GCACCACAAGGTGTACGATTTGACCAAAATTTCTGGAAGAGCATCCTGGTGGGGAAGAAGT TTTAAGGGAACAAGCTGGAGGTGACGCTACTGAGAACTTTGAGGATGTCGGGCACCTAC AGATGCCAGGAAATGTCCAAAACATTCATCATTGGGGAGCTCCATCCAGATGACAGACC AAAGTTAAACAAGCCTCCGAAAACCTTTATCACTACTATTGATTCTAGTTCAGTTGGT GACCAACTGGGTGATCCCTGCCATCTCTGCAGTGGCCGTCGCTTGTATCGCCTATA CATGGCAGAGGACTGAACACCTCCTCAGAAGTCAGCGCAGGAAGAGCCTGCTTTGGACAC GGGAGAAAAGAAGCCATTGCTAACTACTCAACTGACAGAAAACCTTCACTTGAAAACAAT GATTNTAATATATCTCTTTCTTTNTCTTCCGACATTAGAAAACAAAAGAACTGTC CTTTCTGCGCTCAAATTTTTCGAGTGTGCCTTTTTATTCACTTTATNTGATGGTT CCTTTATGGNNGTATTACTTTTATATAGCATGATCTTTTAAAATATATTTGGCTTTTAA TANAAAAAAGAACTCGCTCTAGATTGGGNGCGGTATAGCTGTTTCTGACAGACC GGNNTGCATCCCTGTGACCCNCCCAGTCTTCTGGCCTGNNAGTGC
<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_148923 unedited CCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTACTTTAAAAGCCAAATATATTTTT AAAAGATCATGCTTATAATAAGTAAATTACACATTAAGGAAACATCAAAATAAAGTAGAT GAATAAAAAGGCACACTTCGAAAAATTTGAGCGCAGAAAGGACAGTTCTTTTTGTTTTGT TTCTAATGTCGGAAGAAAAGAAAGAGATATATTTAAAATCATTGTTTTCAAGTGAAGTT TCTGTCAAGTTGAAGTAGTTAGCAATGGCTCTTTTCTCCCGTGTCCAAAGCAGGCTCTTC CTGCGCTGACTTCTGAGGAGGTGTTCAAGTCTCTGCCATGTATAGGCGATACATCAAGGC GACGGCCACTGCAGAGATGGCAGGGATCACCCAGTTGGTCCACCAACTGGAAGTGAATC AATAGTAGTGATAAGAGTTTCCGGAGGCTTGTTAACTTTGGTCTGTCACTGGATGGAG CTCCCCAATGATGAATGTTTTGGACATTTCCCTGGCATCTGTAGAGTGCCCGACATCCTC AAAGTTCTCAGTAGCGTCACCTCCAGCTTGTTCCCTTAAAACCTTCTTCCCACCAGGATG CTCTTCCAGAAAATTTGGTCAAATCGTACACCTTGTGGTGCANGATCAGCCAGGTGCTCTT GCTGTGGTTGTGCTTCTGAAATCTCTCTAGGNTGTAGTACTTCACGGNCTCGTNCGACTG CTCTTGATCTCGGGTTCGCGCGAGCCANGCCACAGACACAGCCNNGTNNNGGTGGG GAGCANAAGGGCGGACTTAACCAGNTTCCACCCGGGACATTCCCCCTCGTGCCGAATT CGGGNCGAGGGCTTGTGCCGAATTCGGGGCGCCCTTAAGGGGATTTCGTATTACAAATTT TGGACGGTCACTAAACAACTTGCTAAAATTAACTTTACGGTACAGCCTACCGCCATT GGTAACGGGGGGGGGTATATACAAA
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_148923
<b>Insert Size:</b>	900 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
<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).

**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\\_148923.2](#), [NP\\_683725.1](#)

**RefSeq Size:** 820 bp

**RefSeq ORF:** 405 bp

**Locus ID:** 1528

**UniProt ID:** [P00167](#)

**Cytogenetics:** 18q22.3

**Protein Families:** Transmembrane

**Gene Summary:** The protein encoded by this gene is a membrane-bound cytochrome that reduces ferric hemoglobin (methemoglobin) to ferrous hemoglobin, which is required for stearyl-CoA-desaturase activity. Defects in this gene are a cause of type IV hereditary methemoglobinemia. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]  
Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).