

## Product datasheet for **RG204033**

### **coproporphyrinogen oxidase (CPOX) (NM\_000097) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	coproporphyrinogen oxidase (CPOX) (NM_000097) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	coproporphyrinogen oxidase
Synonyms:	COX; CPO; CPX; HARPO; HCP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204033 representing NM\_000097  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCTTGCAGCTGGGCAGGCTGAGCTCGGGCCCTGCTGGCTCGTGGCGCGGGCGGCTGCGGAGGGC  
 CCCGCGCCTGGTCCCAGTGC GGCGGGGAGGGCTCCGAGCCTGGTCCCAGCGCAGCGCAGCCGGACGCGT  
 CTGCCGGCCCCCTGGCCCGGCTGGCACGGAGCAGAGCCGCGGGCTGGGGCACGGCTCGACGTCGAGAGGC  
 GGCCCTGGGTGGGGACAGGGCTGGCCGCGGCGTGGCGGGTTGGTGGGGCTGGCCACCGCCGCTTCG  
 GGCATGTGCAGCGGGGAGATGTTGCCTAAGACCTCGGGGACGCGGGCCACTTCGCTGGGGAGGCCGGA  
 GGAGGAGGAGGATGAGCTGGCCACCGCTGCAGCAGCTTCATGGCCCCGCTGTGACCGACTGGGCGAG  
 CTGCGAAGGAGGCCGGGCGACATGAAGACCAAGATGGAGCTGCTGATTCTGGAGACCCAGGCCAGGTGT  
 GCCAGGCTCTGGCACAGGTAGACGGGGGCGCAACTTTTCTGTGGACCGTGGGAGAGGAAGGAAGGAGG  
 TGGCGGCATCAGCTGTGTACTTCAAGATGGGTGTGTTTTCGAAAAGGCTGGGGTGAGCATTCTGTGTT  
 CATGGAATCTTTCAGAGGAAGCTGCAAAAACAAATGAGAAGCAGAGGAAAAGTTCTGAAGACTAAAGATG  
 GTAATTGCCATTTGTGCTATGGGCGTGAGCTCTGTTATCCACCCCAAGAATCCTCATGCTCCTACTAT  
 CCATTTCAACTACAGATACTTTGAAGTAGAAGAAGCTGATGGCAACAAGCAGTGGTGGTTTGGTGGTGA  
 TGTGACCTCACTCCAACATACTTGAATCAAGAAGACGCTGTCCATTTTCACAGA ACTCTGAAGGAGGCTT  
 GTGACCAGCATGGTCCAGATCTCTACCCCAATTTAAAAAATGGTGTGATGATTACTTCTTTATAGCCCA  
 TCGTGGAGAGCGGGCGGGCATTGGTGGTATCTTTTTGATGATCTTGACTCTCCGTCCAAGGAGGAGGTG  
 TTTGCTTTGTACAGAGCTGTGCCAGGGCTGTAGTTCCTTCTTACATTCCTTGTGAAAAGCACTGTG  
 ATGACTATTACCCCCAGGAGAAGCTGTGGCAGCAGCTCAGAAGAGGACGGTATGAGAATTTAATCT  
 GCTGTATGATCGGGGCACAAAGTTTGGCCTCTTCACTCCAGGATCCAGAATTGAAAGTATCTTGATGCT  
 TTACCTCTAACTGCCGATGGGAGTACATGCATTCACCCTCAGAGAATTCCAAAGAAGCTGAAATCTGG  
 AAGTTCTACGCCATCCAAGGACTGGGTGCGT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG204033 representing NM\_000097  
 Red=Cloning site Green=Tags(s)

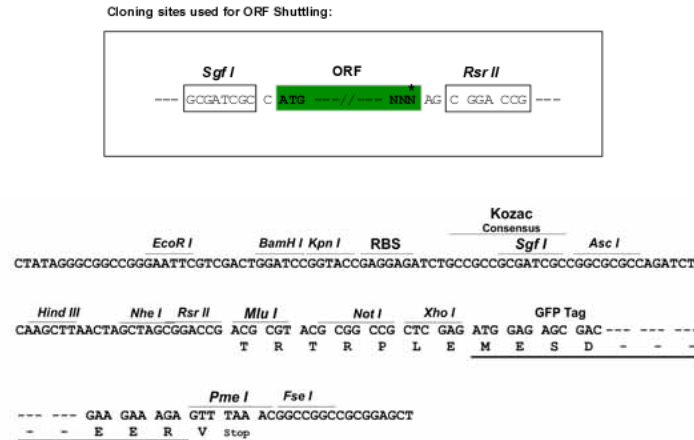
MALQLGRLSSGPCWLVARGGCGPRAWQCGGGGLRAWSQSAAGRVCPPGPAGTEQSRGLGHGSTRG  
 GPWVGTGLAAALAGLVGLATAAFGHVQRAEMLPKTSGTRATSLGRPEEEDELAHRCSSFMAPPVTDLGE  
 LRRRPGDMKTKMELLILETQAQVCQALAQVDGGANFSVDRWERKEGGGISCVLQDGCVFEEKAGVSVV  
 HGNLSEEAQMRSRGKVLKTKDGKLPFCAMGVSSVIHPKNPHPTIHFNYRYFEVEEADGNKQWWFGGG  
 CDLTPTYLNQEDAVHFHRTLKEACDQHGPDLYPKFKKWCDYFFIAHRGERRGIGGIFDLDSPSKEEV  
 FRFVQSCARAVVPSYIPLVKKHCDSFTPQEKLWQLRRGRYVEFNLLYDRGTFGLFTPGSRIESILMS  
 LPLTARWEYMHSPSENSEAEILEVLRHPRDWVR

SGP**TRRRLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-RsrII

Cloning Scheme:



ACCN: NM\_000097

ORF Size: 1362 bp

OTI Disclaimer: 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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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\\_000097.4](#), [NP\\_000088.3](#)

RefSeq Size: 2728 bp

RefSeq ORF: 1365 bp

Locus ID: 1371

UniProt ID: [P36551](#)

Cytogenetics: 3q11.2

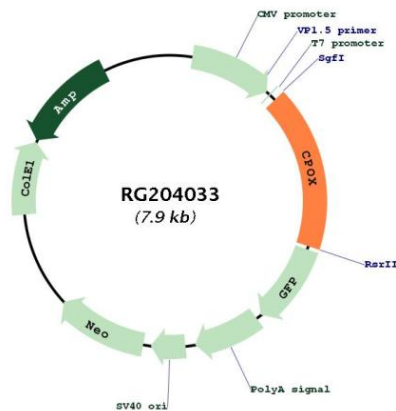
**Domains:** Coprogen\_oxidas

**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Porphyrin and chlorophyll metabolism

**Gene Summary:** The protein encoded by this gene is the sixth enzyme of the heme biosynthetic pathway. The encoded enzyme is soluble and found in the intermembrane space of mitochondria. This enzyme catalyzes the stepwise oxidative decarboxylation of coproporphyrinogen III to protoporphyrinogen IX, a precursor of heme. Defects in this gene are a cause of hereditary coproporphyrinemia (HCP).[provided by RefSeq, Oct 2009]

**Product images:**



Circular map for RG204033