

## Product datasheet for **RG228162**

### COX11 (NM\_001162861) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	COX11 (NM_001162861) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	COX11
Synonyms:	COX11P
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG228162 representing NM_001162861 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGAGGGCTCTGGCGTCTGGATGGAGGTGCGTTCCTTTCTGTGGCTGGCGCTGGATCCACCCTGGGT  
CTCCAACCAGGGCTGCAGAGAGGGTAGAGCCGTTTCTTAGGCCAGAGTGGAGTGGGACAGGAGGTGCCGA  
GAGAGGACTGAGGTGGCTTGGGACATGGAAGCGCTGCAGCCTTCGAGCCCGGCATCCAGCATTGCAGCCG  
CCGCGCGGCCTAAGAGCTCGAACCTTTCACACGCGCGCAGGAGGAGGAGCGGGCGGCAGAACAAGA  
CGACCCTCACTTACGTGGCCGCTGTCGCGTGGGCATGCTGGGGCGTCTACGCTGCCGTACCCCTTTA  
TCGGCTCTATTGCCAGACTACTGGACTTGGAGGATCAGCAGTTGCAGGTCATGCCTCAGACAAGATTGAA  
AACATGGTGCCTGTTAAAGATCGAATCATTAAAATTAGCTTTAATGCAGATGTGCATGCAAGTCTCCAGT  
GGAACCTTAGACCTCAGCAAACAGAAATATATGTGGTGCCAGGAGAGACTGCACTGGCGTTTTACAGAGC  
TAAGAATCCTACTGACAAACAGTAATTGGAATTTCTACATACAATATTGTTCCATTTGAAGCTGGACAG  
TATTTCAATAAAATACAGGTATTGTCTCCAGGCTTCAAAGCTGCACAGAGTCTACGTTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG228162 representing NM\_001162861  
 Red=Cloning site Green=Tags(s)

MGGLWRPGWRCVPFCGWRWIHPGSPTRAAERVEPFLRPEWSGTGGAERGLRWLGTWKRCSLRARHPALQP  
 PRRPKSSNPFTRAQEEERRRQNKTTLYVAAVAVGMLGASYAAVPLYRLYCQTTGLGGSAVAGHASDKIE  
 NMVPVKDRIIKISFNADVHASLQWNFRPQQTEIYVVPGETALAFYRAKNPTDKPVI GISTYNIIVPFEAGQ  
 YFNKIQVLSRRLQSCTESTF

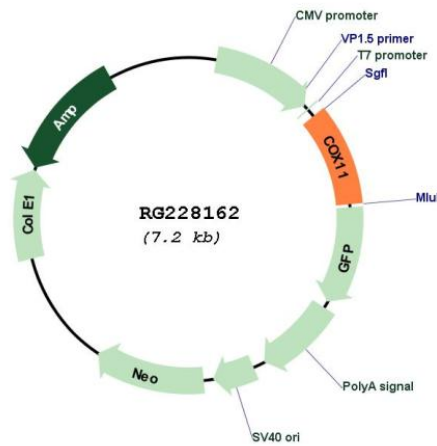
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001162861

**ORF Size:** 690 bp

<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_001162861.2</a> , <a href="#">NP_001156333.1</a>
<b>RefSeq Size:</b>	838 bp
<b>RefSeq ORF:</b>	693 bp
<b>Locus ID:</b>	1353
<b>Cytogenetics:</b>	17q22
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, Oxidative phosphorylation
<b>Gene Summary:</b>	Cytochrome c oxidase (COX), the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes a protein which is not a structural subunit, but may be a heme A biosynthetic enzyme involved in COX formation, according to the yeast mutant studies. However, the studies in <i>Rhodobacter sphaeroides</i> suggest that this gene is not required for heme A biosynthesis, but required for stable formation of the Cu(B) and magnesium centers of COX. This human protein is predicted to contain a transmembrane domain localized in the mitochondrial inner membrane. Multiple transcript variants encoding different isoforms have been found for this gene. A related pseudogene has been found on chromosome 6. [provided by RefSeq, Jun 2009]