

## Product datasheet for **RG209066**

### **SUOX (NM\_000456) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SUOX (NM_000456) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SUOX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG209066 representing NM\_000456  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTGCTGCTGCACAGAGCTGTGGTCTCAGGCTCCAACAGGCCTGCAGACTCAAGTCAATCCCCTCAA  
 GGATCTGCATTCAGGCCTGCTCCACAAATGATTCAATTCAGCCCCAGCGCCCAGCCTCACCTTCTCTGG  
 TGATAACTCCAGCACCCAGGGATGGAGAGTCTATGGGGACCCTATTAGGTCTCGGTGCAGTGTGGCCTAT  
 CAGGACCATCGGTGTAGGGCTGCTCAGGAGTCAACACACATATACACTAAGGAGGAAGTGAAGTCCACACA  
 CCAGCCCTGAGACTGGGATCTGGGTGACTCTGGGCTCTGAGGTCTTTGATGTCACAGAATTTGTGGACCT  
 ACATCCAGGGGGCCTTCAAAGCTGATGCTAGCAGCTGGGGTCCCCTAGAGCCCTTCTGGGCCCTCTAT  
 GCTGTTACAACAGTCCCATGTGCGTGAAGTACTGGCTCAGTACAAGATTGGGGAGCTGAATCCTGAAG  
 ACAAGGTAGCCCCACCGTGGAGACCTCTGACCCTTATGCTGATGATCCTGTACGTACCCAGCCCTGAA  
 GGTC AACAGCCAGCGGCCCTTAAATGCAGAGCCTCCCCCTGAGCTGCTGACAGAAAACATACACACCC  
 AACCTATCTTCTCACCCGGAACCATCTGCCTGTACCTAACCTGGATCCAGACACCTATCGCTTACACG  
 TAGTAGGAGCACCTGGGGTCACTCACTGTCTCTTTCCCTGGATGACTTGCAACAACCTTCCAGGTACGA  
 GATCACAGTCACTCTGCAGTGTGCCGGAACCGACGCTCTGAGATGACTCAGGTCAAAGAAGTAAAAGGT  
 CTGGAGTGGAGAACAGGAGCCATCAGCACTGCACGCTGGGCTGGGGCACGGCTCTGTGATGTGTTAGCCC  
 AGGCTGGCCACCAACTCTGTGAAACTGAGGCCACGTCTGCTTTGAGGGACTGGACTCAGACCCTACTGG  
 GACTGCCTATGGAGCATCCATCCCTCTGGCTCGGGCATTGACCTGAAGCTGAGGTCTGCTGGCATAT  
 GAGATGAATGGGACGCTCTGCCACGTGACCACGGCTCCCTGTGCGTGTGGTGGTTCTGGAGTGGTGG  
 GTGCCCGCCATGTCAAATGGCTGGGACAGTGAAGTGTGACAGCAGAGGAAAGTTACAGCCACTGGCAACG  
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 CAGGAACCTCTGTCCAGTCCGCCATCACAGAGCCCCGGGATGGAGAGACTGTAGAATCAGGGGAGGTGA  
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 CCTAACCTGGCAGGTGGCTAAGCTGGATGGAGAGGAACAGCGCCCCAGGAAGGCCTGGGCATGGCGTCTG  
 TGGCAGTTGAAAGCCCCTGTGCCAGCTGGACAAAAGGAACGAACATTGTTTGTAAAGCTGTGGATGATG  
 GTTACAATGTGCAGCCAGACACCGTGGCCCAATCTGGAACCTGCGAGGTGTTCTCAGCAATGCCTGGCA  
 TCGTGTCCATGTCTATGTCTCCCA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG209066 representing NM\_000456  
 Red=Cloning site Green=Tags(s)

MLLLHRAVVLRLQQACRLKSIPSRICIQACSTNDSFQPQRPSLTFSGDNSSTQGWRVMGTLGLGAVLAY  
 QDHCRAAQESTHIYTKKEEVSSHTSPETGIWVTLGSEVFDVTEFVDLHPGGPSKLM LAAGGPLEPFWALY  
 AVHNQSHVRELLAQYKIGELNPEDKVAPTIVETSDPYADDPVRRHPALKVNSQRPFNAEPPPELLTENYITP  
 NPITFFTRNHLVVPNLDPDTPYRLHVVGAPGGQSLSLDLDLHNFPRYEITVTLQCAGNRRSEMTQVKEVKG  
 LEWRTGAI STARWAGARLCDVLAQAGHQLCETE AHVCFEGLDSDPTGTAYGASIP LARAMDPEAEVLLAY  
 EMNGQPLPRDHGFPVRVVVPGVVGARHVKWLGRVSVQPEESYSHWQRRDYKGFSPVDWETVDFDSAPSI  
 QELPVQSAITEPRDGETVESGEVTIKGYAWSGGGRAVIRVDVSLDGGLTWQVAKLDGEEQRPRKAWAWRL  
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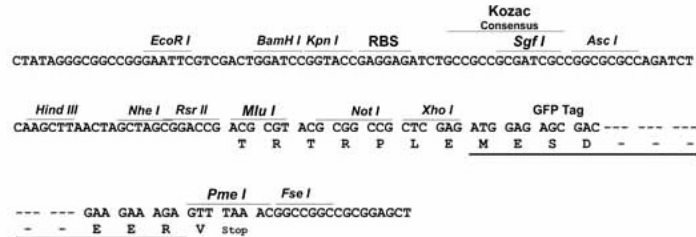
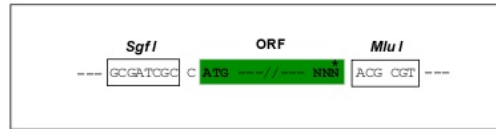
**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



- ACCN:** NM\_000456
- ORF Size:** 1635 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\\_000456.2](#), [NP\\_000447.2](#)
- RefSeq Size:** 2564 bp
- RefSeq ORF:** 1638 bp
- Locus ID:** 6821
- UniProt ID:** [P51687](#)

**Cytogenetics:** 12q13.2

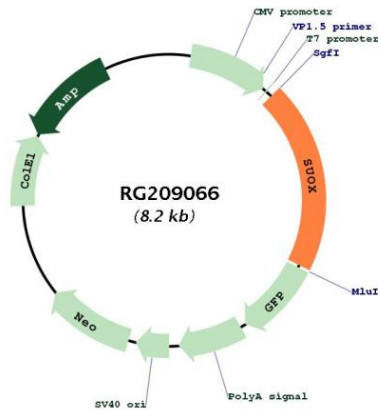
**Domains:** oxidored\_molyb, heme\_1, Mo-co\_dimer

**Protein Families:** Druggable Genome

**Protein Pathways:** Sulfur metabolism

**Gene Summary:** Sulfite oxidase is a homodimeric protein localized to the intermembrane space of mitochondria. Each subunit contains a heme domain and a molybdopterin-binding domain. The enzyme catalyzes the oxidation of sulfite to sulfate, the final reaction in the oxidative degradation of the sulfur amino acids cysteine and methionine. Sulfite oxidase deficiency results in neurological abnormalities which are often fatal at an early age. Alternative splicing results in multiple transcript variants encoding identical proteins. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG209066