

## Product datasheet for **RC209066**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SUOX (NM_000456) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SUOX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC209066 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCTGCTGCTGCACAGAGCTGTGGTCTCAGGCTCCAACAGGCCTGCAGACTCAAGTCAATCCCCTCAA  
 GGATCTGCATTCAGGCCCTGCTCCACAAATGATTCAATTCAGCCCCAGCGCCCAGCCTCACCTTCTCTGG  
 TGATAACTCCAGCACCCAGGGATGGAGAGTCTATGGGGACCCTATTAGGTCTCGGTGCAGTGTGGCCTAT  
 CAGGACCATCGGTGTAGGGCTGCTCAGGAGTCAACACACATATACACTAAGGAGGAAGTGAAGTCCACACA  
 CCAGCCCTGAGACTGGGATCTGGGTGACTCTGGGCTCTGAGGTCTTTGATGTCACAGAATTTGTGGACCT  
 ACATCCAGGGGGCCTTCAAAGCTGATGCTAGCAGCTGGGGTCCCCTAGAGCCCTTCTGGGCCCTCTAT  
 GCTGTTCAACACAGTCCCATGTGCGTGAAGTACTGGCTCAGTACAAGATTGGGGAGCTGAATCCTGAAG  
 ACAAGGTAGCCCCACCGTGGAGACCTCTGACCCTTATGCTGATGATCCTGTACGTACCCAGCCCTGAA  
 GGTC AACAGCCAGCGGCCCTTAAATGCAGAGCCTCCCCCTGAGCTGCTGACAGAAAACATCACACCC  
 AACCTATCTTCTCACCCGGAACCATCTGCCTGTACCTAACCTGGATCCAGACACCTATCGCTTACACG  
 TAGTAGGAGCACCTGGGGTCACTCACTGTCTCTTCCCTGGATGACTTGCAACAACCTTCCAGGTACGA  
 GATCACAGTCACTCTGCAGTGTGCCGGAACCGACGCTCTGAGATGACTCAGGTCAAAGAAGTAAAAGGT  
 CTGGAGTGGAGAACAGGAGCCATCAGCACTGCACGCTGGGCTGGGGCACGGCTCTGTGATGTGTTAGCCC  
 AGGCTGGCCACCAACTCTGTGAAACTGAGGCCACGTCTGCTTTGAGGGACTGGACTCAGACCCTACTGG  
 GACTGCCTATGGAGCATCCATCCCTCTGGCTCGGGCATTGACCTGAAGCTGAGTCTGCTGGCATAT  
 GAGATGAATGGGACGCTCTGCCACGTGACCACGGCTCCCTGTGCGTGTGGTGGTTCCTGGAGTGGTGG  
 GTGCCCGCCATGTCAAATGGCTGGGACAGTGAAGTGTGACAGCAGAGGAAAGTTACAGCCACTGGCAACG  
 CGGGATTACAAAGGCTTCTCTCCATCTGTGGACTGGGAGACTGTAGATTTTACTCTGCTCCATCCATT  
 CAGGAACCTCCTGTCCAGTCCGCCATCACAGACCCCGGGATGGAGAGACTGTAGAATCAGGGGAGGTGA  
 CCATCAAGGGCTATGCATGGAGTGGTGGTGGCAGGGCTGTGATCCGGGTGGATGTGTCTCTGGATGGGG  
 CCTAACCTGGCAGGTGGCTAAGCTGGATGGAGAGGAACAGCGCCCAGGAAGGCCGGGCATGGCGTCTG  
 TGGCAGTTGAAAGCCCTGTGCCAGCTGGACAAAAGAACTGAACATTGTTTGTAAAGCTGTGGATGATG  
 GTTACAATGTGCAGCCAGACACCGTGGCCCAATCTGGAACCTGCGAGGTGTTCTCAGCAATGCCTGGCA  
 TCGTGTCCATGTCTATGTCTCCCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209066 protein sequence  
 Red=Cloning site Green=Tags(s)

MLLLHRAVVLRLQQACRLKSIPSRICIQACSTNDSFQPQRPSLTFSGDNSSTQGWRVMGTLGLGAVLAY  
 QDHRCAAQESTHIYTKKEEVSSHTSPETGIWVTLGSEVFDVTEFVDLHPGGPSKLM LAAGGLEPFWALY  
 AVHNQSHVRELLAQYKIGELNPEDKVAPTIVTSDPYADDPVRRHPALKVNSQRPFNAPPELLTENYITP  
 NPIFFTRNHLVVPNLDPDTRHLVVGAPGGQSLSLDLDLHNFPRYEITVTLQCAGNRRSEMTQVKEVKG  
 LEWRTGAI STARWAGARLCDVLAQAGHQLCETEAHVCFEGLDSDPTGTAYGASIP LARAMDPEAEVLLAY  
 EMNGQPLPRDHGFPVRRVVVPGVVGARHVKWLGRVSVQPEESYSHWQRDRYKGFSPSVDWETVDFDSAPSI  
 QELPVQSAITEPRDGETVESGEVTIKGYAWSGGGRAVIRVDVSLDGGLTWQVAKLDGEEQRPRKAWAWRL  
 WQLKAPVPAGQKELNIVCKAVDDGYNVQPDVAPIWNLRGVL SNAWHRVHVYVSP

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6355\\_f05.zip](https://cdn.origene.com/chromatograms/mk6355_f05.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**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

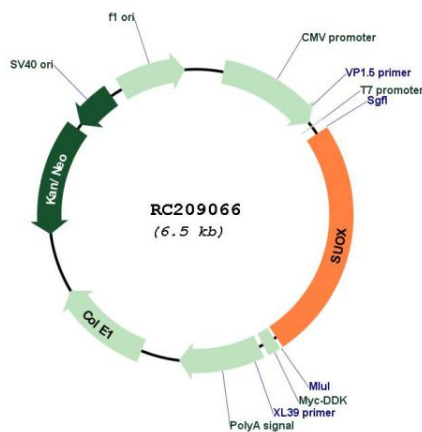
**RefSeq ORF:** 1638 bp

**Locus ID:** 6821

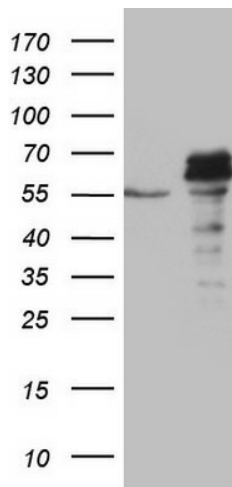
**UniProt ID:** [P51687](#)

<b>Cytogenetics:</b>	12q13.2
<b>Domains:</b>	oxidored_molyb, heme_1, Mo-co_dimer
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Sulfur metabolism
<b>MW:</b>	60.3 kDa
<b>Gene Summary:</b>	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]

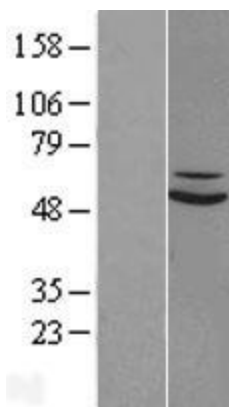
**Product images:**



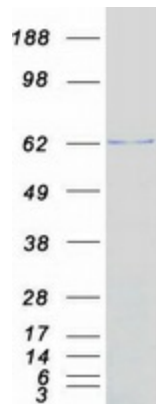
Circular map for RC209066



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SUOX (Cat# RC209066, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SUOX (Cat# [TA805951]). Positive lysates [LY424706] (100ug) and [LC424706] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY422322]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC224152] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SUOX protein (Cat# [TP309066]). The protein was produced from HEK293T cells transfected with SUOX cDNA clone (Cat# RC209066) using MegaTran 2.0 (Cat# [TT210002]).