

## Product datasheet for **SC322623**

### **NADPH oxidase 4 (NOX4) (NM\_016931) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NADPH oxidase 4 (NOX4) (NM_016931) Human Untagged Clone
Tag:	Tag Free
Symbol:	NADPH oxidase 4
Synonyms:	KOX; KOX-1; RENOX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for SC322623  
 CCGCTGCCCGGCGCCGCCCGCTCCTTCTCGGTCCGGCGGGCACAGAGCGCAGCGCGGC  
 GGGGCCGGCGGCATGGCTGTGTCTGGAGGAGCTGGCTCGCCAACGAAGGGGTTAAACAC  
 CTCTGCCTGTTTCTGGCTCTCCATGAATGTCCTGCTTTTCTGGAAAACCTTCTTGCTG  
 TATAACCAAGGGCCAGAGTACTACTACCTCCACCAGATGTTGGGGCTAGGATTGTGTCTA  
 AGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTTATCCTTTTACCCATGTGC  
 CGAACACTCTTGGCTTACCTCCGAGGATCACAGAAGTTCCAAGCAGGAGAACCAGGAGA  
 TTGTTGGATAAAAAGCAGAACATTCCATATTACCTGTGGTGTACTATCTGTATTTTCTCA  
 GGCGTGCATGTGGCTGCCCATCTGGTGAATGCCCTCAACTTCTCAGTGAATTACAGTGAA  
 GACTTTGTGAACTGAATGCAGCAAGATACCGAGATGAGGATCCTAGAAAACCTTCTCTTC  
 ACAACTGTTCTGGCCTGACAGGGGTCTGCATGGTGGTGGTGCTATTCTCATGATCACA  
 GCCTCTACATATGCAATAAGAGTTTCTAACTATGATATCTTCTGGTATACTATAACCTC  
 TTCTTTGTCTTACATGCTGCTGACGTTGCATGTTTCAGGAGGGCTGCTGAAGTATCAA  
 ACTAATTTAGATACCCACCTCCCGGCTGCATCAGTCTTAACCGAACCCAGCTCTCAGAAT  
 ATTTCTTACCAGAGATTTTCTCAGAACATTTTTCATGAACCTTTCCCTGAAGATTTTCA  
 AAACCGGCAGAGTTTACCAGCACAATTTGTGAAGATTTGTATGGAAGAGCCCAGATTC  
 CAAGCTAATTTTCCACAGACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCC  
 GAAAGACTTTACAGGTATATCCGGAGCAATAAGCCAGTACCATCATTTCGGTCATAAGT  
 CATCCCTCAGATGTCATGGAAATCCGAATGGTCAAAGAAAATTTAAAGCAAGACCTGGT  
 CAGTATATTACTTACATTGTCCAGTGTATCTGCATTAGAAAATCATCCATTTACCCTC  
 ACAATGTGTCCAACCTGAAACCAAGCAACATTTGGGGTTCATCTTAAAATAGTAGGAGAC  
 TGGACAGAACGATTTTCGAGATTTACTACTGCCTCCATCTAGTCAAGACTCCGAAATCTG  
 CCCTTCATTCATCTAGAAATTTCCCAAGCTGTATATTGATGGTCTTTTGGAGTCCA  
 TTTGAGGAATCACTGAACCTATGAGGTGAGCCTCTGCGTGGCTGGAGGCATTGGAGTAACT  
 CCATTTGCATCAATACTCAACACCCTGTTGGATGACTGGAAACCATACAAGCTTAGAAGA  
 CTATACTTTATTTGGGTATGCAGAGATATCCAGTCTTCCGTTGGTTTGCAGATTTACTC  
 TGTATGTTGCATAACAAGTTTTGGCAAGAGAACAGACCTGACTATGTCAACATCCAGCTG  
 TACCTCAGTCAAACAGATGGGATACAGAAGATAATTGGAGAAAAATCATGCACTGAAT  
 TCAAGACTGTTTATAGGACGTCCTCCGTGGAAACTTTTGTGTTGATGAAATAGCAAAATAT  
 AACAGAGGAAAAACAGTTGGTGTCTTCTGTTGTGGACCAATTCATCAAGACTCTT  
 CATAAACTGAGTAACCAGAACAACTCATATGGGACAAGATTTGAATACAATAAAGAGTCT  
 TTCAGCTGAAAACCTTTTGCATGAAGCAGGACTCTAAAGAAGGAATGAGTGAATTTCTA  
 AGACTTTGAAAACCTCAGCGGAATCAATCAGCTGTGTTATGCCAAAGAATAGTAAGGTTTTCT  
 TTATTTATGATTTTAAAATGGAAATGTGAGAATGTGGCAAGATGACCGTCACATTACA  
 TGTTTAACTCTGGAACCAAGAGACCCTGAAGAATATTTGATGTGATGATTCACCTTTTCA  
 GTTCTCAAATTAAGAAAACTGTTAGATGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
 AAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_016931

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_016931.2](#), [NP\\_058627.1](#)

**RefSeq Size:** 2416 bp

**RefSeq ORF:** 1737 bp

**Locus ID:** 50507

**UniProt ID:** [Q9NPH5](#)

**Cytogenetics:** 11q14.3

**Protein Families:** Druggable Genome, Transmembrane

**Gene Summary:**

This gene encodes a member of the NOX-family of enzymes that functions as the catalytic subunit the NADPH oxidase complex. The encoded protein is localized to non-phagocytic cells where it acts as an oxygen sensor and catalyzes the reduction of molecular oxygen to various reactive oxygen species (ROS). The ROS generated by this protein have been implicated in numerous biological functions including signal transduction, cell differentiation and tumor cell growth. A pseudogene has been identified on the other arm of chromosome 11. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Jan 2009] Transcript Variant: This variant (1) encodes isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.