

## Product datasheet for **RC227438**

### **NADPH oxidase 4 (NOX4) (NM\_001143836) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NADPH oxidase 4 (NOX4) (NM_001143836) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NADPH oxidase 4
Synonyms:	KOX; KOX-1; RENOX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC227438 representing NM\_001143836  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGTGTCCTGGAGGAGCTGGCTCGCCAACGAAGGGTTAAACACCTCTGCCTGTTTCATCTGGCTCT  
 CCATGAATGTCCTGCTTTTCTGGAAAACCTTCTTGCTGTATAACCAAGGGCCAGAGTACTACTACCTCCA  
 CCAGATGTTGGGCTAGGATTGTGTCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTT  
 ATCCTTTTACCCATGTGCCGAACACTCTTGGCTTACCTCCGAGGATCACAGAAGTTTCCAAGCAGGAGAA  
 CCAGGAGATTGTTGGATAAAAAGCAGAACATTCCATATTACCTGTGGTGTACTATCTGTATTTTCTCAGG  
 CGTGCATGTGGCTGCCCATCTGGTGAATGCCCTCAACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAA  
 CTGAATGCAGCAAGATACCGAGATGAGGATCCTAGAAAACCTTCTTTCACAACCTGTTCTGGCCTGACAG  
 GGGTCTGCATGGTGGTGGTCTATTCTCATGATCACAGCCTCTACATATGCAATAAGAGTTTCTAACTA  
 TGATATCTTCTGGTATACTATAACCTTCTTTTGTCTTCTACATGCTGCTGACGTTGCATGTTTCAGGA  
 GGGCTGCTGAAGTATCAAACTAATTTAGATACCCACCCTCCCGGCTGCATCAGTCTTAACCGAACCAAGCT  
 CTCAGAATATTTCTTACCAGAGTATTTCTCAGAACATTTTCATGAACCTTTCCCTGAAGGATTTTCAAA  
 ACCGGCAGAGTTTACCCAGCACAAATTTGTGAAGATTTGTATGGAAGAGCCAGATTCCAAGCTAATTTT  
 CCACAGACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCCGAAAGACTTTACAGGTATATCC  
 GGAGCAATAAGCCAGTCACCATCATTTCCGGTCATAAGTCATCCCTCAGATGTCATGGAAATCCGAATGGT  
 CAAAGAAAATTTAAAGCAAGACCTGGTCAGTATATTACTCTACATTGTCCCAGTGTATCTGCATTAGAA  
 AATCATCCATTTACCCTCACAATGTGTCCAACGAAACCAAGCAACATTTGGGGTTCATCTTAAATAG  
 TAGGAGACTGGACAGAACGATTTTCGAGATTTACTACTGCCTCCATCTAGTCAAGACTCCGAAATTTGCC  
 CTTTCATCAATCTAGAAAATTATCCAAGGATGACTGGAACCATACAAGCTTAGAAGACTATACTTTATT  
 TGGGTATGCAGAGATATCCAGTCTTCCGTTGGTTTGCAGATTTACTCTGTATGTTGCATAACAAGTTT  
 GGCAAGAGAACAGACCTGACTATGTCAACATCCAGCTGTACCTCAGTCAAACAGATGGGATACAGAAGAT  
 AATTGGAGAAAAATATCATGCACTGAATTCAGACTGTTTATAGGACGTCCTCGGTGAAACTTTTGT  
 GATGAAATAGCAAAATATAACAGAGGAAAAACAGTTGGTGTTTTCTGTTGTGGACCAATTCACTATCCA  
 AGACTCTTCATAAACTGAGTAACCAGAACAACTCATATGGACAAGATTTGAATACAATAAAGAGTCTTT  
 CAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC227438 representing NM\_001143836  
 Red=Cloning site Green=Tags(s)

MAVSWRSWLANEGVKHLCLFIWLSMNVLLFWKTFLLYNQGPYHYLHQMLGLGLCLSRASASVLNLCNSL  
 ILLPMCRTLLAYLRGSQKVPSRRRRLLDKSRFHTICGVTICIFSGVHVAHLVNALNFSVNYSEDFVE  
 LNAARYRDEDPRKLLFTTVPGLTGVCMVVVLFLMITASTYAIRVSNYDIFWYTHNLFFVFYMLLTLHVSG  
 GLLKYQTNLDTHPPGCISLNRSSQNLISLPEYFSEHFHEPFPEGFSKPAEFTQHKFKVICMEEPFRQANF  
 PQTWLWISGPLCLYCAERLYRIRSNKPVTIISVISHPSDVMEIRMVKENFKARPGQYITLHCPVSVALE  
 NHPFTLTMCPTEKATFGVHLKIVGDWTERFRDLLLLPPSSQDSEILPFIQSRNYPKDDWKPYKLRLRYFI  
 WVCARDIQSFRWFADLLCMLHNKFWQENRPDYVNIQLYLSQTDGIQKIIGEKYHALNSRLF IGRPRWKLLF  
 DEIAKYNRGKTGVGFCCGPNSLSKTLHKLNSQNNSYGRFEYNKESFS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8066\\_b10.zip](https://cdn.origene.com/chromatograms/mk8066_b10.zip)

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_001143836

ORF Size: 1614 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\\_001143836.2](#), [NP\\_001137308.1](#)

RefSeq ORF: 1617 bp

Locus ID: 50507

UniProt ID: [Q9NPH5](#)

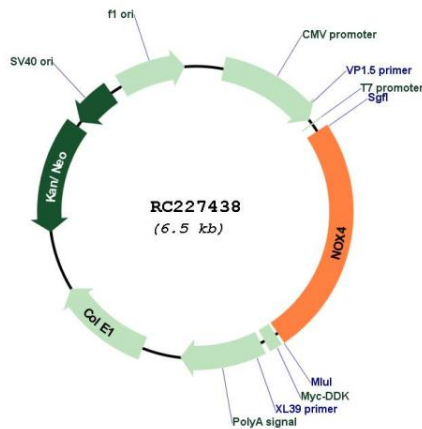
Cytogenetics: 11q14.3

**Protein Families:** Druggable Genome, Transmembrane

**MW:** 62.5 kDa

**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]

## Product images:



Circular map for RC227438