

Product datasheet for **RC238661**

NADPH oxidase 4 (NOX4) (NM_001300995) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NADPH oxidase 4 (NOX4) (NM_001300995) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NOX4
Synonyms:	KOX; KOX-1; RENOX
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC238661 representing NM_001300995
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAATGCTCTGCTTTTCTGAAAACTTCTTGCTGTATAACCAAGGGCCAGAGTATCACTACCTCCACC
 AGATGTTGGGGCTAGGATTGTGTCTAAGCAGAGCCTCAGCATCTGTTCTAACCTCAACTGCAGCCTTAT
 CCTTTTACCCATGTGCCGAACACTCTTGCTTACCTCCGAGGATCACAGAAGTTCCAAGCAGGAGAACC
 AGGAGATTGTTGGATAAAAGCAGAACATTCATATTACCTGTGGTGTACTATCTGTATTTTCTCAGGCG
 TGCATGTGGTGGCCATCTGGTGAATGCCCTCACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAACT
 GAATGCAGCAAGATACCGAGATGAGGATCTAGAAAACTTCTTTCACAACCTGTTCTGGCCTGACAGGG
 GTCTGCATGGTGGTGGTCTATTCTCATGATCACAGCCTCTACATATGCAATAAGAGTTTCTAACTATG
 ATATCTTCTGGTATACTATAACCTCTTCTTTGTCTTCTACATGCTGCTGACGTTGCATGTTTCAGGAGG
 GCTGCTGAAGTATCAAATAATTTAGATACCCACCTCCCGGCTGCATCAGTCTTAACCGAACCAGCTCT
 CAGAATATTTCTTACCAGAGTATTTCTCAGAACATTTTCATGAACCTTTCCCTGAAGGATTTTCAAAC
 CGGCAGAGTTTACCCAGCACAAATTTGTGAAGATTTGTATGGAAGAGCCAGATTCGAAGCTAATTTTCC
 ACAGACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGACTGTGCCGAAAGACTTTACAGGTATATCCGG
 AGCAATAAGCCAGTCACCATCATTTCCGGTCATGAGTCAATCCCTCAGATGTCATGGAATCCGAATGGTCA
 AAGAAAATTTAAAGCAAGACCTGGTCAAGTATATTACTCTACATTGTCCCAGTGTATCTGCATTAGAAAA
 TCATCCATTTACCTCACAAATGTGTCCAACCTGAAACCAAGCAACATTTGGGGTTCATCTTAAAAAGTA
 GGAGACTGGACAGAACGATTTTCGAGATTTACTACTGCCTCCATCTAGTCAAGACTCCGAAATTCGCCCT
 TCATTCAATCTAGAAATATCCCAAGGATGACTGGAACCATACAAGCTTAGAAGACTATACTTTATTTG
 GGTATGCAGAGATATCCAGTCTTCCGTTGGTTTGCAGATTTACTCTGTATGTTGCATAACAAGTTTGG
 CAAGAGAACAGACCTGACTATGTCAACATCCAGCTGTACCTCAGTCAAACAGATGGGATACAGAAGATAA
 TTGGAGAAAAATATCATGCACTGAATTCAGACTGTTTATAGGACGTCCTCGGTGAAACTTTTGTTTGA
 TGAAATAGCAAAAATAACAGAGGAAAAACAGTTGGTGTCTTCTGTTGTGGACCAATTCACTATCCAAG
 ACTCTTCATAAACTGAGTAACAGAACAACTCATATGGGACAAGATTTGAATAACAATAAAGAGTCTTTCA
 GC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238661 representing NM_001300995
 Red=Cloning site Green=Tags(s)

MNVLLFWKTFLLYNQPEYHYLHQMLGLGLCLSRASAVLNLNCSLILLPMCRLLLAYLRGSQKVPSSRRT
 RRLLDKSRTFHITCGVTICIFSGVHVAHLVNALNFSVNYSEDFVELNAARYRDEDPKLLFTTVPGLTG
 VCMVVVFLMITASTYAIRVSNYDIFWYTHNLFFVYMLLTLHVSGLLKYQTNLDTHPPGCISLNRSS
 QNISLPEYFSEHFHEPFPEGFSKPAEFTQHKFVKICMEEPRFQANFPQTLWISGPLCLYCAERLYRYIR
 SNKPVTIISVMSPSDVMEIRMVKENFKARPGQYITLHCPSVSALENHPFTLTMCPETKATFGVHLKIV
 GDWTERFRDLLLLPPSSQDSEILPFIQSRNYPKDDWKPYKLRRLYFIWVCRDIQSFQRFADLLCMLHNKFW
 QENRPDYVNIQLYLSQTDGIQKIIGEKYHALNSRLFIGRPRWKLFLDEIAKYNRGKTVGVFCGPNLSL
 TLHKLNSQNNSYGTRFEYNKESFS

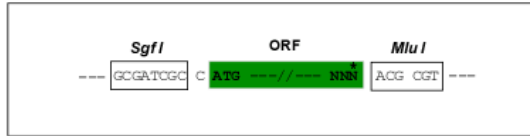
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

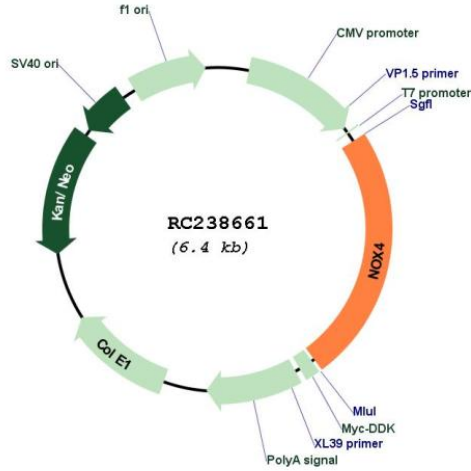
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001300995
ORF Size:	1542 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:	<ol style="list-style-type: none">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_001300995.1 , NP_001287924.1
RefSeq Size:	4062 bp
RefSeq ORF:	1545 bp
Locus ID:	50507
UniProt ID:	Q9NPH5
Cytogenetics:	11q14.3
Protein Families:	Druggable Genome, Transmembrane
MW:	60.4 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]