

Product datasheet for **RC238872**

NADPH oxidase 4 (NOX4) (NM_001291929) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NADPH oxidase 4 (NOX4) (NM_001291929) 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:

>RC238872 representing NM_001291929
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCTTTCTGCAGTTACTGATTTAGGTTCCATTGAAAGCACTGTGTCAAGAATTTACCTGTGGTTCTA
 TTCATCAGCTAGGATTGTGTCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTTATCCT
 TTTACCCATGTGCCGAACACTCTTGCTTACCTCCGAGGATCACAGAAGTTCCAAGCAGGAGAACCAGG
 AGATTGTTGGATAAAAGCAGAACATTCCATATTACCTGTGGTGTACTATCTGTATTTTCTCAGGCGTGC
 ATGTGGCTGCCCATCTGGTGAATGCCCTCAACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAAGTAA
 TGCAGCAAGATACCGAGATGAGGATCCTAGAAAATTCTCTTCACAACTGTTCTGGCCTGACAGGGGTC
 TGCATGGTGGTGGTCTATTCTCATGATCACAGCCTCTACATATGCAATAAGAGTTTCTAACTATGATA
 TCTTCTGGTATACTATAACCTTCTTTGTCTTCTACATGCTGCTGACGTTGCATGTTTCAGGAGGGCT
 GCTGAAGTATCAAATAATTTAGATACCCACCCTCCCGGCTGCATCAGTCTTAACCGAACAGCTCTCAG
 AATATTTCTTACCAGAGTATTTCTCAGAACATTTTCATGAACCTTTCCCTGAAGGATTTTCAAAACCGG
 CAGAGTTTACCCAGCACAAATTTGTGAAGATTTGTATGGAAGAGCCAGATTCCAAGCTAATTTCCACA
 GACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCCGAAAGACTTTACAGGTATATCCGGAGC
 AATAAGCCAGTACCATCATTTCGGTCATAAGTCATCCCTCAGATGTCATGGAAATCCGAATGGTCAAAG
 AAAATTTAAAGCAAGACCTGGTCAAGTATATTACTCTACATTGTCCAGTGTATCTGCATTAGAAAATCA
 TCCATTTACCCACAAATGTGTCCAAGTAAACCAAGCAACATTTGGGGTTCATCTTAAATAGTAGGA
 GACTGGACAGAACGATTCGAGATTTACTACTGCCTCCATCTAGTCAAGACTCCGAAATTTGCCCTTCA
 TTCAACTAGAAAATTATCCCAAGCTGTATATTGATGGTCTTTTGAAGTCCATTTGAGGAATCACTGAA
 CTATGAGGTCAGCCTCTGCGTGGCTGGAGGCAATTGGAGTAACTCCATTTGCATCAATACTCAACCCCTG
 TTGGATGACTGGAACCATAACAAGCTTAGAAGACTATACTTTATTTGGGTATGCAGAGATATCCAGTCTT
 TCCGTTGGTTTGCAGATTTACTCTGTATGTTGCATAACAAGTTTTGGCAAGAGAACAGACCTGACTATGT
 CAACATCCAGCTGTACCTCAGTCAAACAGATGGGATACAGAAGATAATTGGAGAAAAATATCATGCACTG
 AATTCAAGACTGTTTATAGGACGTCCTCGGTGGAAACTTTGTTTGTGAAATAGCAAAAATAACAGAG
 GAAAAACAGTTGGTGTCTTGTGTGGACCAATTCATATCCAAGACTCTTCATAAACTGAGTAACCA
 GAACAACATATGGACAAGATTTGAATACAATAAAGAGTCTTTCAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238872 representing NM_001291929
 Red=Cloning site Green=Tags(s)

MLSAVTDLGSIESTVSKNLPVVSIIHQLGLCLSRASAVLNLNCSLILLPMCRLLAYLRGSQKVPSSRRTR
 RLLDKSRTFHITCGVTICIFSGVHVAHLVNALNFSVNYSEDFVELNAARYRDEDPRKLLFTTVPGLTG
 CMVVVFLMITASTYAIRVSNYDIFWYTHNLFFVYMLLTLHVSGLLKYQTNLDTHPPGCISLNRTSSQ
 NISLPEYFSEHFHEPPEGF SKPAEFTQHKFVKICMEEPRFQANFPQTWLWISGPLCLYCAERLYRYS
 NKPVTIISVISHPSDVMEIRMVKENFKARPGQYITLHCPSVSALENHPFTLTMCPTEKATFGVHLKIVG
 DWTERFRDLLLPSSQDSEILPFIQSRNYPKLYIDGPFSPFEESLNVEVSLCVAGGIGVTPFASILNLT
 LDDWKPYKLRLRYFIWVCRDIQSFRWFADLLCMLHNKFWQENRPDYVNIQLYLSQTDGIQKIIGEKYHAL
 NSRLFIGRPRWKLLEIAKYNRGTVGVFCCGPNLSKTLHLKSNQNNSYGTRFEYNKESFS

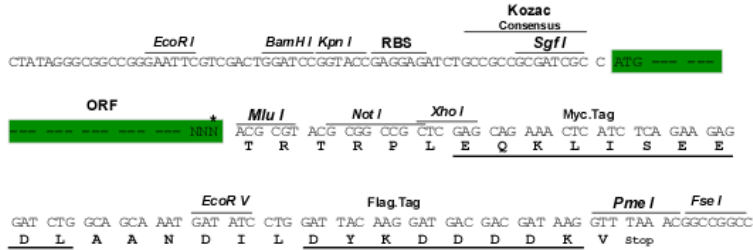
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

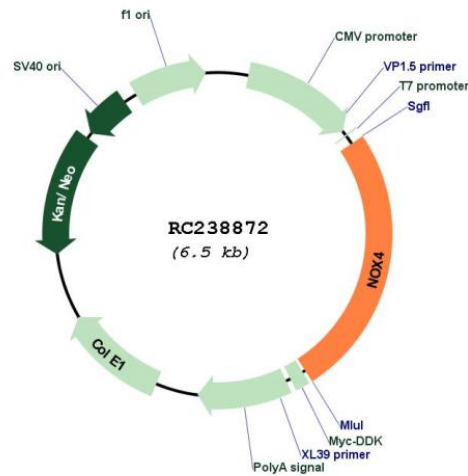
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001291929
ORF Size:	1659 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_001291929.1 , NP_001278858.1
RefSeq Size:	4122 bp
RefSeq ORF:	1662 bp
Locus ID:	50507
Cytogenetics:	11q14.3
Protein Families:	Druggable Genome, Transmembrane
MW:	63.9 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]