

Product datasheet for **RG227438**

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:	TurboGFP
Symbol:	NOX4
Synonyms:	KOX; KOX-1; RENOX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG227438 representing NM_001143836
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTGTGCTCCTGGAGGAGCTGGCTCGCCAACGAAGGGTTAAACACCTCTGCCTGTTTCATCTGGCTCT
 CCATGAATGTCCTGCTTTTCTGGAAAACCTTCTTGCTGTATAACCAAGGGCCAGAGTACTACTACCTCCA
 CCAGATGTTGGGCTAGGATTGTGTCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTT
 ATCCTTTTACCCATGTGCCGAACACTCTTGGCTTACCTCCGAGGATCACAGAAGGTTCCAAGCAGGAGAA
 CCAGGAGATTGTTGGATAAAAAGCAGAACATTCCATATTACCTGTGGTGTACTATCTGTATTTTCTCAGG
 CGTGCATGTGGCTGCCCATCTGGTGAATGCCCTCAACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAA
 CTGAATGCAGCAAGATACCGAGATGAGGATCCTAGAAAACCTTCTTTCACAACCTGTTCTGGCCTGACAG
 GGGTCTGCATGGTGGTGGTGTCTATTCTCATGATCACAGCCTCTACATATGCAATAAGAGTTTCTAACTA
 TGATATCTTCTGGTATACTATAACCTTCTTTTGTCTTCTACATGCTGCTGACGTTGCATGTTTCAGGA
 GGGCTGCTGAAGTATCAAACTAATTTAGATACCCACCCTCCCGGCTGCATCAGTCTTAACCGAACAGCT
 CTCAGAATATTTCTTACCAGAGTATTTCTCAGAACATTTTCATGAACCTTTCCCTGAAGGATTTTCAAA
 ACCGGCAGAGTTTACCCAGCACAAATTTGTGAAGATTTGTATGGAAGAGCCAGATTCCAAGCTAATTTT
 CCACAGACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCCGAAAGACTTTACAGGTATATCC
 GGAGCAATAAGCCAGTCACCATCATTTCCGGTCATAAGTCATCCCTCAGATGTCATGGAAATCCGAATGGT
 CAAAGAAAATTTAAAGCAAGACCTGGTCAGTATATTACTCTACATTGTCCCAGTGTATCTGCATTAGAA
 AATCATCCATTTACCCTCACAATGTGTCCAACGAAACCAAGCAACATTTGGGGTTCATCTTAAATAG
 TAGGAGACTGGACAGAACGATTTTCGAGATTTACTACTGCCTCCATCTAGTCAAGACTCCGAAATTTGCC
 CTTTCATCAATCTAGAAAATTATCCAAGGATGACTGGAACCATACAAGCTTAGAAGACTATACTTTATT
 TGGGTATGCAGAGATATCCAGTCTTCCGTTGGTTTGCAGATTTACTCTGTATGTTGCATAACAAGTTT
 GGCAAGAGAACAGACCTGACTATGTCAACATCCAGCTGTACTCAGTCAAACAGATGGGATACAGAAGAT
 AATTGGAGAAAAATATCATGCACGAAATCAAGACTGTTTATAGGACGTCCTCGTGAAACTTTTGT
 GATGAAATAGCAAAATATAACAGAGGAAAAACAGTTGGTGTCTTCTGTTGTGGACCAATCACTATCCA
 AGACTCTTCATAAACTGAGTAACCAAGAACAACATATGGACAAGATTTGAATACAATAAAGAGTCTTT
 CAGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG227438 representing NM_001143836
 Red=Cloning site Green=Tags(s)

MAVSWRSWLANEGVKHLCLFIWLSMNVLLFWKTFLLYNQGPEYHYLHQLGLGLCLSRASASVLNLCNSL
 ILLPMCRTLAYLRGSQKVPSRRRRLDKSRTFHITCGVTICIFSGVHVAHLVNALNFSVNYSEDFVE
 LNAARYRDEDPRKLLFTTVPGLTGVCMVVFLMITASTYAIRVSNYDIFWYTHNFFVFYMLLTLHVSG
 GLLKYQTNLDTHPPGCISLNRTSSQNISLPEYFSEHFHEPFPEGF SKPAEFTQHKFKVICMEEPFQANF
 PQTWLWISGPLCLYCAERLYRYIRSNKPVTIISVISHPSDVMEIRMVKENFKARPGQYITLHCPVSVALE
 NHPFTLTMCPTETKATFGVHLKIVGDWTERFRDLLLPPSSQDSEILPFIQSRNYPKDDWKPYKLRRLYFI
 WVCRDIQSFRWFADLLCMLHNKFWQENRPDYVNIQLYLSQTDGIQKIIGEKYHALNSRLF IGRPRWKLFF
 DEIAKYNRGKTVGVFCCGPNSLSKTLHKL SNQNNSYGTRFEYNKESFS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

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:	<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_001143836.2 , NP_001137308.1
RefSeq Size:	4270 bp
RefSeq ORF:	1617 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]