

Product datasheet for **RG208007**

NADPH oxidase 4 (NOX4) (NM_016931) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NADPH oxidase 4 (NOX4) (NM_016931) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NADPH oxidase 4
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:

>RG208007 representing NM_016931
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTGTGTCCTGGAGGAGCTGGCTCGCCAACGAAGGGTTAAACACCTCTGCCTGTTTCATCTGGCTCT
 CCATGAATGTCCTGCTTTTCTGAAAACCTTCTTGCTGTATAACCAAGGGCCAGAGTACTACTACCTCCA
 CCAGATGTTGGGCTAGGATTGTGTCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTT
 ATCCTTTTACCCATGTGCCGAACACTCTTGGCTTACCTCCGAGGATCACAGAAGTTTCCAAGCAGGAGAA
 CCAGGAGATTGTTGGATAAAAGCAGAACATTCCATATTACCTGTGGTGTACTATCTGTATTTTCTCAGG
 CGTGCATGTGGCTGCCCATCTGGTGAATGCCCTCAACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAA
 CTGAATGCAGCAAGATACCGAGATGAGGATCCTAGAAAACCTTCTTTCACAACTGTTCTGGCCTGACAG
 GGGTCTGCATGGTGGTGGTGTATTCTCATGATCACAGCCTCTACATATGCAATAAGAGTTTCTAACTA
 TGATATCTTCTGGTATACTATAACCTTCTTTTGTCTTCTACATGCTGCTGACGTTGCATGTTTCAGGA
 GGCTGCTGAAGTATCAAACTAATTTAGATACCCACCCTCCCGGCTGCATCAGTCTTAACCGAACAGCT
 CTCAGAATATTTCTTACCAGAGTATTTCTCAGAACATTTTCATGAACCTTTCCCTGAAGGATTTTCAAA
 ACCGGCAGAGTTTACCCAGCACAAATTTGTGAAGATTTGTATGGAAGAGCCAGATTCCAAGCTAATTTT
 CCACAGACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCCGAAAGACTTTACAGGTATATCC
 GGAGCAATAAGCCAGTACCATCATTTCCGGTCATAAGTCATCCCTCAGATGTCATGGAAATCCGAATGGT
 CAAAGAAAATTTAAAGCAAGACCTGGTCAGTATATTACTCTACATTGTCCCAGTGTATCTGCATTAGAA
 AATCATCCATTTACCCTCACAATGTGTCCAACGAAACCAAGCAACATTTGGGGTTCATCTTAAATAG
 TAGGAGACTGGACAGAACGATTTTCGAGATTTACTACTGCCTCCATCTAGTCAAGACTCCGAAATTTGCC
 CTTCAATCAATCTAGAAAATTATCCCAAGCTGTATATTGATGGTCTTTTGGAAAGTCCATTTGAGGAATCA
 CTGAACTATGAGGTCAGCCTCTGCGTGGCTGGAGCATTGGAGTAACTCCATTTGCATCAATACTCAACA
 CCCTGTTGGATGACTGGAACCATAACAAGCTTAGAAGACTATACTTTATTTGGGTATGCAGAGATATCCA
 GTCCTTCCGTTGGTTTGCAGATTTACTCTGTATGTTGCATAACAAGTTTTGGCAAGAGAACAGACCTGAC
 TATGTCAACATCCAGCTGTACCTCAGTCAAACAGATGGGATACAGAAGATAATTGGAGAAAAATATCATG
 CACTGAATTAAGACTGTTTATAGGACGCTCCTCGGTGAAACTTTTGTGTTGATGAAATAGCAAAATATA
 CAGAGGAAAAACAGTTGGTGTTTCTGTTGTGGACCAATCACTATCCAAGACTCTTCATAAACTGAGT
 AACCGAACAACATATGGGACAAGATTTGAATACAATAAGAGTCTTTTCAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG208007 representing NM_016931
 Red=Cloning site Green=Tags(s)

MAVSWRSWLANEGVKHLCLFIWLSMNVLLFWKTFLLYNQGPEYHYLHQMLGLGLCLSRASASVLNLCNSL
 ILLPMCRTLLAYLRGSQKVPSRRRRLDKSRTFHITCGVTICIFSGVHVA AHLVNALNFSVNYSEDFVE
 LNAARYRDEDPRKLLFTTVPGLTGVCMVVVLFLMITASTYAIRVSNYDIFWYTHNLFFVFYMLLTLHVSG
 GLLKYQTNLDTHPPGCISLNRSSQNISLPEYFSEHFHEPFPEGFSKPAEFTQHKFKVICMEEPFQANF
 PQTWLWISGPLCLYCAERLYRYIRSNKPVTIISVISHPSDVMEIRMVKENFKARPGQYITLHCPVSVALE
 NHPFTLTMCPTEKATFGVHLKIVGDWTERFRDLLLLPPSSQDSEILPFIQSRNYPKLYIDGPFSGPFEE
 LNYEVS LCVAGGIGVTPFASILNLLDDWKPYKLRRLYFIWVCRDIQSFRWFADLLCMLHNKFWQENRPD
 YVNIQLYLSQTDGIQKIIGEKYHALNSRLFIGRPRWKLDFDEIAKYNRGKTVGVFCCGPNSLSKTLHKLS
 NQNNSYGTRFEYNKESFS

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_016931

ORF Size: 1734 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_016931.4](#)

RefSeq Size: 2416 bp

RefSeq ORF: 1737 bp

Locus ID: 50507

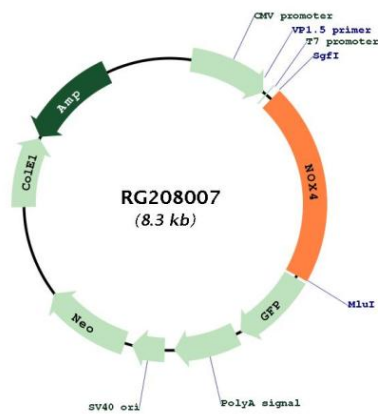
UniProt ID: [Q9NPH5](#)

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]

Product images:



Circular map for RG208007