

Product datasheet for **RG239042**

NADPH oxidase 4 (NOX4) (NM_001291927) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NADPH oxidase 4 (NOX4) (NM_001291927) 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:

>RG239042 representing NM_001291927.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGGGAGAGATGTGGAGGAAGAGGGAAGAGGTCATTTCCGTGAATACAGCTTTTCTTTTACCCTTTA
AACATTTTGTCTCCCTTTGTTCTTTCCAGATTACTTCTGTTTGGTTTCATCTGGCTCTCCATG
AATGTCCTGCTTTTCTGAAAACCTTCTTGTGTATAACCAAGGCCAGAGTATCACTACCTCCACCAG
ATGTTGGGGCTAGGATTGTGCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTTATC
CTTTTACCATGTGCCAACACTCTGGCTTACCTCCGAGGATCACAGAAGGTTCCAAGCAGGAGAACC
AGGAGATTGTTGGATAAAAGCAGAACATTCATATTACCTGTGGTGTACTATCTGTATTTTCTCAGGC
GTGCATGTGGCTGCCATCTGGTGAATGCCCTCAACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAA
CTGAATGCAGCAAGATACCGAGATGAGGATCCTAGAAAACCTTCTTTCACAACCTGTTCTGGCCTGACA
GGGGTCTGCATGGTGGTGGTCTATTCTCATGATCACAGCCTACATATGCAATAAGAGTTTCTAAC
TATGATATCTTCTGGTATACTCATAACCTTTCTTGTCTTCTACATGCTGCTGACGTTGCATGTTTCA
GGAGGGCTGCTGAAGTATCAAACAAATTTAGATACCCACCTCCCGGCTGCATCAGTCTTAACCGAAC
AGCTCTCAGAATATTTCTTACCAGAGTATTTCTCAGAACATTTTCATGAACCTTTCCCTGAAGGATTT
TCAAAACCGGCAGAGTTTACCCAGCACAAATTTGTGAAGATTTGTATGGAAGAGCCAGATTCCAAGCT
AATTTTCCACAGACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCCGAAAGACTTTACAGG
TATATCCGGAGCAATAAGCCAGTACCATCATTTCGGTCATAAGTCATCCCTCAGATGTCATGGAATC
CGAATGGTCAAAGAAAATTTAAAGCAAGACCTGGTCAGTATATTACTCTACATTGTCCCAGTGTATCT
GCATTAGAAAATCATCCATTTACCCTACAATGTGTCCAACGAAACCAAAGCAACATTTGGGGTTCAT
CTTAAAAATAGTAGGAGACTGGACAGAAGATTTGAGATTTACTACTGCCTCCATCTAGTCAAGACTCC
GAAATCTGCCCTTCATTCAATCTAGAAAATTTACCAAGCTGTATATTGATGGTCCTTTTGGAAAGTCCA
TTTGAGGAATCACTGAACATGAGGTGAGCCTCTGCGTGGCTGGAGGCATTGGAGTAACTCCATTTGCA
TCAATACTCAACACCCTGTTGGATGACTGGAAACCATAACAAGCTTAGAAGACTATACTTTATTTGGGTA
TGCAGAGATATCCAGTCTTCCGTTGGTTTGCAGATTTACTCTGTATGTTGCATAACAAGTTTGGCAA
GAGAACAGACCTGACTATGTCAACATCCAGCTGTACCTCAGTCAAACAGATGGGATACAGAAGATAATT
GGAGAAAAATATCATGCACTGAATTCAGACTGTTTATAGGACGCTCCTCGGTGGAACTTTGTTTGTGAT
GAAATAGCAAAAATAACAGAGGAAAAACAGTTGGTGTCTTCTGTTGTGGACCAATTCATATCCAAG
ACTCTTCATAAACTGAGTAACCAGAACAACCTCATATGGGACAAGATTTGAATACAATAAAGAGTCTTTC
AGC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence:

>Peptide sequence encoded by RG239042
 Blue=ORF Red=Cloning site Green=Tag(s)

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MGEWWRKREEVIFREYSFSFYPLNIFAPFVLPDYFCLLGF IWL SMNVLLFWKTFLLYNQPEYHYHLHQ
MLGLGLCLSRASAVLNLC SL ILLPMCRLLAYLRGSQKVP SR RRLLDKSRTFHITCGVTICIFSG
VHVA AHLVNALNFSVNYSEDFVELNAARYRDEDP RKL LFTVPGLTGVC MVVFLMITASTYAIRVSN
YDIFWYTHNLFFVYMLLTLHVSGGLLK YQTNLDTHPPG C I SLNRTSSQNI SLPEYFSEHFHEPPEGF
SKPAEFTQHKFVKICMEEPRFQANFPQTW L WISGPLCLYCAERL YRYIRSNKPV T I I SVISHPSDVMEI
RMVKENFKARPGQYITLHCPVSALENHPFTL TMCPTETKATFGVHLKIVGDWTERFRD L L L PPSSQDS
EILPFIQSRNYPKLYIDPFGSPFEE SL NYEVS L CVAGG I G V T P F A S I L N T L L D D W K P Y K L R R L Y F I W V
CRDIQSFRWFADLLCMLHNKFWQENRPDYVNIQLYL SQT DGI QKI I GEK YHALNSR L F IGRPRWKL L F D
EIAKYNRGT VGV F CCGPNSLSKTLHLKLSNQNN SYGTRFEYNKESFS
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYP SGYENPFLHAINNGGYNTRIEKYEDGGVLHV SFSYRYEAGRVIGDFKVMGTGFPE D
SVIFTDK I I RSNATVEHLHPMGDNDLDG S FTRT FSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
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Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001291927

ORF Size: 1797 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).

RefSeq: [NM_001291927.1](#), [NP_001278856.1](#)

RefSeq Size: 4209 bp

RefSeq ORF: 1800 bp

Locus ID: 50507

UniProt ID: [Q9NPH5](#)

Cytogenetics: 11q14.3

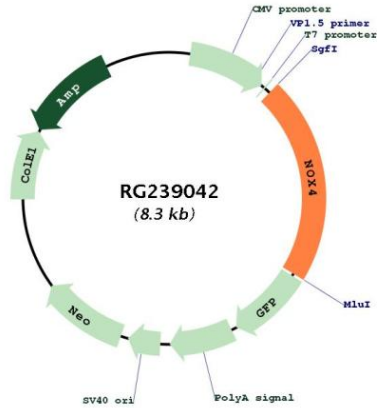
Protein Families: Druggable Genome, Transmembrane

MW: 70.1 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 RG239042