

Product datasheet for **RC239042**

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

Product data:

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

>RC239042 representing NM_001291927
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGAGAGATGTGGAGGAAGAGGGAAGAGGTCATTTTCCGTGAATACAGCTTTTCTTTTACCCTTTAA
 ACATTTTTGCTCCCTTTGTTCTTTTCCAGACTTCTGTTTGGTTTCATCTGGCTCCATGAA
 TGTCTGCTTTTCTGAAAACCTTCTTGCTGTATAACCAAGGCCAGAGTACACTACCTCCACCAGATG
 TTGGGGCTAGGATTGTGTCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTTATCCTTT
 TACCCATGTGCCAACACTCTTGCTTACCTCCGAGGATCACAGAAGGTTCCAAGCAGGAGAACCAGGAG
 ATTGTTGGATAAAAGCAGAACATTCCATATTACCTGTGGTGTACTATCTGTATTTTCTCAGGCGTGCAT
 GTGGCTGCCCATCTGGTGAATGCCCTCACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAACTGAATG
 CAGCAAGATACCGAGATGAGGATCCTAGAAAATCTCTTCACTGTTCTGGCCTGACAGGGGTCTG
 CATGGTGGTGGTCTATTCTCATGATCACAGCCTCTACATATGCAATAAGAGTTTCTAACTATGATATC
 TTCTGGTATACTATAACCTCTTCTTTGCTTCTACATGCTGCTGACGTTGCATGTTTCAGGAGGGCTGC
 TGAAGTATCAAACATAATTAGATACCCACCCTCCCGGCTGCATCAGTCTTAACCGAACCGCTCTCAGAA
 TATTTCTTACCAGATTTTCTCAGAACATTTTCATGAACCTTTCCCTGAAGGATTTTCAAACCGGCA
 GAGTTTACCAGCACAAATTTGTGAAGATTTGTATGGAAGAGCCAGATTCCAAGCTAATTTTCCACAGA
 CTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCCGAAAGACTTTACAGGTATATCCGGAGCAA
 TAAGCCAGTCACCATCATTTCCGTCATAAGTCAATCCCTCAGATGTCATGGAAATCCGAATGGTCAAAGAA
 AATTTTAAAGCAAGACCTGGTCAGTATATTACTCTACATTGTCCCAGTGTATCTGCATTAGAAAATCATC
 CATTTACCCTACAATGTGTCCTCAACTGAAACCAAGCAACATTTGGGGTTCATCTTAAAAATAGTAGGAGA
 CTGGACAGAACGATTTTCGAGATTTACTACTGCCCTCCATCTAGTCAAGACTCCGAAATTCGCCCTTCATT
 CAATCTAGAAATTATCCAAGCTGTATATTGATGGTCCTTTTGGAAAGTCCATTTGAGGAATCACTGAACT
 ATGAGGTCAGCCTCTGCGTGGCTGGAGGCATTGGAGTAACTCCATTTGCATCAATACTCAACACCCTGTT
 GGATGACTGGAACCATAACAAGCTTAGAAGACTATACTTTATTTGGGTATGCAGAGATATCCAGTCTTTC
 CGTTGGTTTGCAGATTTACTCTGTATGTTGCATAACAAGTTTGGCAAGAGAACAGACCTGACTATGTCA
 ACATCCAGCTGTACCTCAGTCAAACAGATGGGATACAGAAGATAATTGGAGAAAAATATCATGCACTGAA
 TTCAAGACTGTTTATAGGACGTCCTCGGTGAAACTTTTGTGTTGATGAAATAGCAAAATATAACAGAGGA
 AAAACAGTTGGTGTCTGTTGTGGACCAATCACTATCCAAGACTCTTCATAAACTGAGTAACCAGA
 ACAACTCATATGGACAAGATTTGAATACAATAAAGAGTCTTTCAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC239042 representing NM_001291927
 Red=Cloning site Green=Tags(s)

MGEMWRKREEVIFREYSFSFYPLNIFAPFVLPDYFCLLGF IWL SMNVLLFWKTFLLYNQGP EYHYLHQML
 LGLGLCLSRASAVLNLC SLILLPMCR TLLAYLRGSQKVPSRRTRRLDKSRTFHITCGVTICIFSGVH
 VAAHLVNALNFSVNYSEDFVELNAARYRDEDPKLLFTTVPLGTGVMVVVFLMITASTYAIRVSNYDI
 FWYTHNLFFVYMLLTLHVSGLLKYQTNLDTHPPGCISLNRTSSQNISLPEYFSEHFHEPFPEGFSKPA
 EFTQHKFVKICMEEPFQANFPQTLWISGPLCLYCAERLYRIRSNKPVTIISVISHPSDVMEIRMVKE
 NFKARPGQYITLHCPVSALENHPFTLTMCP TETKATFGVHLKIVGDWTERFRDLLLPPSSQDSEILPFI
 QSRNYPKLYIDGPF GSPFEESLNYEVS LCVAGGIGVTPFASILNTLLDDWKPYKLRRLYFIWVCRDIQSF
 RWFADLLCMLHNKFWQENRPDYVNIQLYLSQTDGIQKIIGEKYHALNSRLF IGRPRWKLLFDEIAKYNRG
 KTVGVFCCGPNLSKTLHKL SNQNN SYGTRFEYNKESFS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

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| 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_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] |