

Product datasheet for **RC227479**

NADPH oxidase 4 (NOX4) (NM_001143837) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NADPH oxidase 4 (NOX4) (NM_001143837) 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:

>RC227479 representing NM_001143837
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTGTGTCCTGGAGGAGCTGGCTCGCCAACGAAGGGGTTAAACACCTCTGCCTGTTTCATCTGGCTCT
 CCATGAATGTCCTGCTTTTCTGGAAAACCTTCTTGCTGTATAACCAAGGGCCAGAGTACTACTACCTCCA
 CCAGATGTTGGGCTAGGATTGTGTCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTT
 ATCCTTTTACCCATGTGCCGAACACTCTTGGCTTACCTCCGAGGATCACAGAAGGTTCCAAGCAGGAGAA
 CCAGGAGATTGTTGGATAAAAAGCAGAACATTCCATATTACCTGTGGTGTACTATCTGTATTTTCTCAGG
 CGTGCATGTGGCTGCCCATCTGGTGAATGCCCTCAACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAA
 CTGAATGCAGCAAGATACCGAGATGAGGATCCTAGAAAACCTTCTTTCACAACCTGTTCTGGCCTGACAG
 GGGTCTGCATGGTGGTGGTGTCTATTCTCATGATCACAGCCTCTACATATGCAATAAGAGTTTCTAACTA
 TGATATCTTCTGGTATACTATAACCTTCTTTTGTCTTCTACATGCTGCTGACGTTGCATGTTTCAGGA
 GGGCTGCTGAAGTATCAAACTAATTTAGATACCCACCCTCCCGGCTGCATCAGTCTTAACCGAACAGCT
 CTCAGAATATTTCTTACCAGAGTATTTCTCAGAACATTTTCATGAACCTTTCCCTGAAGGATTTTCAAA
 ACCGGCAGAGTTTACCCAGCACAAATTTGTGAAGATTTGTATGGAAGAGCCAGATTCCAAGCTAATTTT
 CCACAGACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCCGAAAGACTTTACAGGTATATCC
 GGAGCAATAAGCCAGTCAACATCATTTCCGGTCATAAGTCATCCCTCAGATGTCATGGAATCCGAATGGT
 CAAAGAAAATTTAAAGCAAGACCTGGTCAGTATATTACTCTACATTGTCCCAGTGTATCTGCATTAGAA
 AATCATCCATTTACCCTCACAATGTGTCCAACGAAACCAAGCAACATTTGGGGTTCATCTTAAATAG
 TAGGAGACTGGACAGAACGATTTTCGAGATTTACTACTGCCTCCATCTAGTCAAGACTCCGAAATTTGCC
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 CTGAACTATGAGGTCAGCCTCTGCGTGGCTGGAGGCAATTGGAGTAACTCCATTTGCATCAATACTCAACA
 CCCTGTTGGATGACTGGAACCATAACAAGCTTAGAAGACTATACTTTATTTGGGTATGCAGAGATATCCA
 GTCCTTCCGTTGGTTTGCAGATTTACTCTGTATGTTGCATAACAAGTTTTGGCAAGAGAACAGACCTGAC
 TATGTCAACATCCAGCTGTACCTCAGTCAAACAGATGGGATACAGAAGATAATTGGAGAAAAATATCATG
 CACTGAATTAAGACTGTTTATAGGACGTCCTCGGTGAAACTTTTGTGTTGATGAAATAGCAAAATATAA
 CAGAGGAAAAACAGTTGGTGTTTCTGTGTGGACCAATTCATATCCAAGACTCTTCATAAACTGAGT
 AACCGAACAACATCATATGGGACAAGATTTGAATACAATAAGAGTCTTTCAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227479 representing NM_001143837
 Red=Cloning site Green=Tags(s)

MAVSWRSLANEGVKHLCLFIWLSMNVLFWKTFLLYNQGPPEYHYLHQLGLGLCLSRASASVNLNLSL
 ILLPNCRTLLAYLRGSQKVPSSRRTRRLDKSRTFHITCGVTICIFSGVHVAHLVNALNFSVNYSEDFVE
 LNAARYRDEDPKLLFTTVPGLTGVCMVVFLMITASTYAIRVSNYDIFWYTHNLFVVFYMLLTLHVSG
 GLLKYQTNLDTHPPGCISLNRSSQNIISLPEYFSEHFHEPFPEGFSPAEFTQHKFKVICMEEPFQANF
 PQTWLWISGPLCLYCAERLYRIRSNKPVTIISVISHPSDVMEIRMVKENFKARPGQYITLHCPVSVALE
 NHPFTLTMCPTETKATFGVHLKIVGDWTERFRDLLLLPPSSQDSEILPFIQSRNPKLYIDGPFSPFEES
 LNYEVS LCVAGGIGVTPFASILNLTLLDDWKPYKLRRLYFIWVCRDIQSFRWFADLLCMLHNKFWQENRPD
 YVNIQLYLSQTDGIQKIIGEKYHALNSRLFIGRPRWKLDFEIAKYNRGKTVGVFCGPNLSKTLHLKLS
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

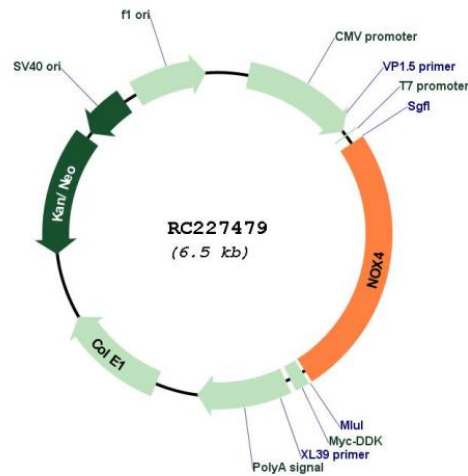
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001143837
 ORF Size: 1737 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_001143837.1 , NP_001137309.1
RefSeq Size:	4615 bp
RefSeq ORF:	1665 bp
Locus ID:	50507
UniProt ID:	Q9NPH5
Cytogenetics:	11q14.3
Protein Families:	Druggable Genome, Transmembrane
MW:	66.9 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]