

Product datasheet for **SC126416**

NADPH oxidase 4 (NOX4) (BC040105) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NADPH oxidase 4 (NOX4) (BC040105) Human Untagged Clone
Tag:	Tag Free
Symbol:	NADPH oxidase 4
Synonyms:	kidney superoxide-producing NADPH oxidase; KOX; KOX-1; NADPH oxidase 4; renal NAD(P)H-oxidase; RENOX
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for BC040105 edited
CCGCTGCCCGGCCGCCGCCGCTCCTTCTCGGTCCGGCGGGCACAGAGCGCAGCGCGG
GGGGCCGGCGGCATGGCTGTGTCTGGAGGAGCTGGCTCGCCAACGAAGGGGTTAAACAC
CTCTGCCTGTTTCTGGCTCTCCATGAATGTCCTGCTTTTCTGGAAAACCTTCTTGCTG
TATAACCAAGGGCCAGAGTATCACTACCTCCACCAGATGTTGGGGCTAGGATTGTGTCTA
AGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTTATCCTTTTACCCATGTGC
CGAACACTCTTGGCTTACCTCCGAGGATCACAGAAGGTTCCAAGCAGGAGAACCAGGAGA
TTGTTGGATAAAAAGCAGAACATTCCATATTACCTGTGGTGTACTATCTGTATTTTCTCA
GGCGTGCATGTGGCTGCCCATCTGGTGAATGCCCTCAACTTCTCAGTGAATTACAGTGAA
GACTTTGTGAACTGAATGCAGCAAGATACCGAGATGAGGATCCTAGAAAACCTTCTCTTC
ACAACCTGTTCTGGCCTGACAGGGTCTGCATGGTGGTGGTGCTATTCTCATGATCACA
GCCTCTACATATGCAATAAGAGTTTCTAACTATGATATCTTCTGGTATACTATAACCTC
TTCTTTGTCTTACATGCTGCTGACGTTGCATGTTTCAGGAGGGCTGCTGAAGTATCAA
ACTAATTTAGATACCCACCTCCCGGCTGCATCAGTCTTAACCGAACCCAGCTCTCAGAAT
ATTTCTTACCAGAGATTTTCTCAGAACATTTTTCATGAACCTTTCCCTGAAGATTTTCA
AAACCGGCAGAGTTTACCAGCACAATTTGTGAAGATTTGTATGGAAGAGCCCAGATTC
CAAGCTAATTTTCCACAGACTTGGCTTTGGATTTCTGGACCTTTGTGCCTGTACTGTGCC
GAAAGACTTTACAGGTATATCCGGAGCAATAAGCCAGTACCATCATTTCGGTCATAAGT
CATCCCTCAGATGTATGGAAATCCGAATGGTCAAAGAAAATTTAAAGCAAGACCTGGT
CAGTATATTACTTACATTGTCCAGTGTATCTGCATTAGAAAATCATCCATTTACCCTC
ACAATGTGTCCAACCTGAAACCAAGCAACATTTGGGGTTCATCTTAAAAAGTAGGAGAC
TGGACAGAACGATTTGAGATTTACTACTGCCTCCATCTAGTCAAGACTCCGAAATCTG
CCCTTCATTCACTAGAAAATATCCCAAGCTGTATTTGATGGTCTTTTGGAAAGTCCA
TTTGAGGAATCACTGAACCTATGAGGTCAGCCTCTGCGTGGCTGGAGGCATTGGAGTAACT
CCATTTGCATCAATACTCAACACCCTGTTGGATGACTGGAAACCATACAAGCTTAGAAGA
CTATACTTTATTTGGGTATGCAGAGATATCCAGTCTTCCGTTGGTTTGCAGATTTACTC
TGTATGTTGCATAACAAGTTTTGGCAAGAGAACAGACCTGACTATGTCAACATCCAGCTG
TACCTCAGTCAAACAGATGGGATACAGAAGATAATTGGAGAAAAATATCATGCACTGAAT
TCAAGACTGTTTATAGGACGCTCCTCGGTGGAACTTTTGTGTTGATGAAATAGCAAAATAT
AACAGAGGAAAAACAGTTGGTGTCTTCTGTTGTGGACCAATTCATATCCAAGACTCTT
CATAAACTGAGTAACCAGAACAACTCATATGGGACAAGATTTGAATACAATAAAGAGTCT
TTCAGCTGAAAACCTTTGCCATGAAGCAGGACTCTAAAGAAGGAATGAGTGCAATTTCTA
AGACTTTGAAAACCTCAGCGGAATCAATCAGCTGTGTTATGCCAAAGAATAGTAAGGTTTTCT
TTATTTATGATTTTAAAAATGGAAATGTGAGAATGTGGCAAGATGACCGTCACATTACA
TGTTTAACTCTGGAACCAAGAGACCCTGAAGAATATTTGATGTGATGATTCACCTTTTCA
GTTCTCAAATTAAGAAAACTGTTAGATGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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5' Read Nucleotide Sequence:	>OriGene 5' read for BC040105 unedited NNNNNGCGTTTCANATTTTGAATACGACTCACTATAGGGNNCGGCCGCGNAATTCAGTTN CTNNGGTACCGGTCCGGNAATCCCGGGATCCGCTGCCCCGGCCGCCGCCGCTCCTTCT CCGTCCGGCGGGCACAGAGCGCAGCGCGGGCGGGCCGGCCGATGGCTGTGTCTCGGAGG AGCTGGCTCGCCAACGAAGGGGTAAACACCTCTGCCTGTTTCATCTGGCTCTCCATGAAT GTCCTGCTTTTCTGAAAACTTCTTGTGTATAACCAAGGGCCAGAGTATCACTACCTC CACCAGATGTTGGGGCTAGGATTGTGTCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTC AACTGCAGCCTTATCCTTTTACCCATGTGCCGAACACTCTTGGCTTACCTCCGAGGATCA CAGAAGGTTCCAAGCAGGAGAACCAGGAGATTGTTGGATAAAAAGCAGAACATTCCATATT ACCTGTGGTGTACTATCTGTATTTTCTCAGGCGTGCATGTGGCTGCCCATCTGGTGAAT GCCCTCAACTTCTCAGTGAATTACAGTGAAGACTTTGTTGAAGTGAATGCAGCAAGATAC CGAGATGAGGATCTAGAAACTTCTCTTCACTGTTCTGCTGACAGGGGTCTGC ATGGTGGTGGTATTCTCATGATCACAGCCTCTACATATGCAATAAGAGTTTCTAAC TATGAATATCTTCTGGTATACTATAACCTCTCTTTGTCTTCTACATGCTGCTGACGTT GCATGTTTCAGGAGGGCTGCTGAAGTATCAACTAATTAGATCCCACCCTCCGGCTGCAT TAATCTTAACCGACCCGCTTTAA
Restriction Sites:	NotI-NotI
ACCN:	BC040105
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	BC040105.1 , AAH40105.1
RefSeq Size:	2108 bp
RefSeq ORF:	1734 bp
Locus ID:	50507
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]