

## Product datasheet for SC119769

### NCF4 (NM\_000631) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NCF4 (NM_000631) Human Untagged Clone
Tag:	Tag Free
Symbol:	NCF4
Synonyms:	CGD3; NCF; P40PHOX; SH3PXD4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119769 sequence for NM_000631 edited (data generated by NextGen Sequencing)

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ATGGCTGTGGCCAGCAGCTGCGGGCCGAGAGTGACTTTGAACAGCTTCCGGATGATGTT
GCCATCTCGGCCAACATTGCTGACATCGAGGAGAAGAGAGGCTTACCAGCCACTTTGTT
TTCGTCATCGAGGTGAAGACAAAAGGAGGATCCAAGTACCTCATCTACCGCCGCTACCGC
CAGTTCCATGCTTTGCAGAGCAAGCTGGAGGAGCGCTTCGGGCCAGACAGCAAGAGCAGT
GCCCTGGCCTGTACCCTGCCCACTCCCAGCCAAAGTCTACGTGGGTGTGAAACAGGAG
ATCGCCGAGATGCGGATACCTGCCCTCAACGCCTACATGAAGAGCCTGCTCAGCCTGCCG
GTCTGGGTGCTGATGGATGAGGACGTCCGGATCTTCTTTTACCAGTCGCCCTATGACTCA
GAGCAGGTGCCCCAGGCACTCCGCCGGCTCCGCCCGCGCACCCGAAAAGTCAAGAGCGTG
TCCCCACAGGGCAACAGCGTTGACCGCATGGCAGCTCCGAGAGCAGAGGCTCTATTTGAC
TTCAGTGAAACAGCAAAGCTGGAGCTGAATTTCAAAGCTGGAGATGTGATCTTCCCTCCTC
AGTCGGATCAACAAGACTGGCTGGAGGGCACTGTCCGGGGAGCCACGGGCATCTTCCCT
CTCTCCTTCGTGAAGATCCTCAAAGACTTCCCTGAGGAGGACGACCCCACTGGCTG
CGTTGCTACTACTACGAAGACACCATCAGCACCATCAAGGACATCGCGGTGGAGGAAGAT
CTCAGCAGCACTCCCCTATTGAAAGACCTGCTGGAGCTCAAGGCGGGAGTTCCAGAGA
GAGGACATAGCTCTGAATTACCGGGACGCTGAGGGGGATCTGGTTCGGCTGCTGTCGGAT
GAGGACGTAGCGCTCATGGTGCAGGAGGCTCGTGGCTCCCCTCCAGAAAGCGCCTCTTC
CCCTGGAAGCTGCACATCACGCAGAAGGACAACACTACAGGGTCTACAACACGATGCCATGA

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Clone variation with respect to NM\_000631.4



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_000631 unedited</p> <pre> AGGAATTTGTAATACGACTCACTATAGGGCGGCNCGGATTTCGGCACGAGCCCAAGGCAG CTCCTGGGGACTCCCAGACCACAGGCTGAGACGAGACGCAGGGTGGCTGGAGGAAGTGAG AGGTGAACTCAGCCTGGGACTGGCTGGGCGAGACTCTCCACCTGCTCCCTGGGACCATCG CCCACCATGGCTGTGGCCAGCAGCTGCGGGCCGAGAGTGACTTTGAACAGCTTCCGGAT GATGTTGCCATCTCGGCAACATTGCTGACATCGAGGAGAAGAGAGGCTTACCAGCCAC TTTGTTCGTCATCGAGGTGAAGACAAAAGGAGGATCCAAGTACCTCATCTACCGCCGC TACCGCCAGTTCCATGCTTTGCAGAGCAAGCTGGAGGAGCGCTTCGGGCCAGACAGCAAG AGCAGTGCCTTGCCCTGTACCCTGCCACACTCCCAGCCAAAGTCTACGTGGGTGTGAAA CAGGAGATCGCCGAGATGCGGATACCTGCCCTCAACGCCTACATGAAGAGCCTGCTCAGC CTGCCGGTCTGGGTGCTGATGGATGAGGACGTCGGATCTTCTTTTACCAGTCGCCCTAT GACTCAGAGCAGGTGCCACAGGCACTCCGCCGGCTCCGCCGCGCACCCGGAAAGTCAAG AGCGTGTCCACAGGGCAACAGCGTTGACCGCATGGCAGCTCCGAGAGCAGAGGCTCTA TTTGACTTCACTGAAACAGCAAAGTGGAGCTGAATTTAAAGCTGGAGATGTGATCTTCC TNCTCAGTCGNATCAACNAGACTGGCTGGAGGGCACTGTCCGGNNGAGCCACGGCATCTT CCCTCTCTTTTCGTGAAGAACTCAAAGACTTCCTGAGAGGACGACCCNACACTGGC TGGCNGTCTACTACTACGAAGACACATCAGCACATCAGGACATCGCGGTGGAGGAAGACT CACAGACTNCCCTATGAANGACTGCG </pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_000631 unedited</p> <pre> TTTTTTTTTTTTTTTTTCCCTTTCAAAGGAATGGTTTATTTAAATCAGATGTAATAGT AGAAAGAGACAGATTACAAGCCCCACGGTCCATTAGCCTCAAAAAGGAAGTCTGCCCA TCCTCCCAGGTTTTCTGGTCCCAATCTCTCTGAGAGCTGAAGTTTTTCTGGTGTCC CCTCACTGCTCCAGGGACACCGTCAGCTCATGGCATCGTGTGTAGACCTGTAGTTGTC TTCTGCGTGATGTGCAGCTTCCAGGGGAAGAGGCGCTTCTGGGAGGGGAGGCCACGAGC CTGCCGCACCATGAGCGCTACGTCCTCATCCGACAGCAGCCGAACCAGATCCCCCTCAGC GTCCCGGTAATTCAGAGCTATGTCCTCTCTGGAAGTCCCGCCTTGTGAGCTCCAGCAG GTCTTTCAATAGGGGAGTGCTGTGAGATCTTCTCCACCGCGATGTCCTTGATGGTGCT GATGGTGTCTTCGTAGTAGCAACGCAGCCAGTTGGTGGGGTCTCTCTCCTCAGGGAA GTCTTTGAGGATCTTCA </pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000631
<b>Insert Size:</b>	1460 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>

RefSeq: [NM\\_000631.3](#), [NP\\_000622.2](#)  
RefSeq Size: 1386 bp  
RefSeq ORF: 1020 bp  
Locus ID: 4689  
UniProt ID: [Q15080](#)

Cytogenetics: 22q12.3

Domains: PB1, SH3, PX

Protein Pathways: Leukocyte transendothelial migration

**Gene Summary:** The protein encoded by this gene is a cytosolic regulatory component of the superoxide-producing phagocyte NADPH-oxidase, a multicomponent enzyme system important for host defense. This protein is preferentially expressed in cells of myeloid lineage. It interacts primarily with neutrophil cytosolic factor 2 (NCF2/p67-phox) to form a complex with neutrophil cytosolic factor 1 (NCF1/p47-phox), which further interacts with the small G protein RAC1 and translocates to the membrane upon cell stimulation. This complex then activates flavocytochrome b, the membrane-integrated catalytic core of the enzyme system. The PX domain of this protein can bind phospholipid products of the PI(3) kinase, which suggests its role in PI(3) kinase-mediated signaling events. The phosphorylation of this protein was found to negatively regulate the enzyme activity. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]  
Transcript Variant: This variant (1) lacks an internal coding segment compared to variant 2, which leads to a translation frameshift. The resulting isoform (1) has a distinct and shorter C-terminus, as compared to isoform 2.