

## Product datasheet for **RG201191**

### **NCF4 (NM\_013416) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NCF4 (NM_013416) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NCF4
Synonyms:	CGD3; NCF; P40PHOX; SH3PXD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201191 representing NM_013416 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGTGGCCAGCAGCTGCGGGCCGAGAGTGACTTTGAACAGCTTCCGGATGATGTTGCCATCTCGG  
CCAACATTGCTGACATCGAGGAGAAGAGAGGCTTACCAGCCACTTTGTTTTCGTCATCGAGGTGAAGAC  
AAAAGGAGGATCCAAGTACCTCATCTACCGCCGCTACCGCCAGTCCATGCTTTGCAGAGCAAGCTGGAG  
GAGCGCTTCGGGCCAGACAGCAAGAGCAGTGCCCTGGCCTGTACCCTGCCACACTCCCAGCCAAAGTCT  
ACGTGGGTGTGAAACAGGAGATCGCCGAGATGCGGATACCTGCCCTCAACGCCTACATGAAGAGCCTGCT  
CAGCCTGCCGGTCTGGGTGCTGATGGATGAGGAGTCCGGATCTTCTTTTACCAGTCGCCCTATGACTCA  
GAGCAGGTGCCCCAGGCACTCCGCCGGCTCCGCCCGCGCACCCGAAAGTCAAGAGCGTGTCCCCACAGG  
GCAACAGCGTTGACCGCATGGCAGCTCCGAGAGCAGAGGCTCTATTTGACTTCACTGAAACAGCAAAC  
GGAGCTGAATTTCAAAGCTGGAGATGTGATCTTCTCCTCAGTCGGATCAACAAAGACTGGCTGGAGGGC  
ACTGTCCGGGGAGCCACGGGCATCTTCCCTCTCCTTCGTGAAGATCCTCAAAGACTTCCCTGAGGAGG  
ACGACCCCACTGGCTGCGTTGCTACTACTACGAAGACCATCAGCACCATCAAGTCTGTGGCCTG  
GGAGGGAGGGGCTGTCCAGCCTTCTGCCATCCCTACGACCACCGCCCTCACATCACCTTCTCATGGG  
TCCCTCTCCACTCCAAAGCCCCAGTGGCTCCAGATGAGCCACAATGCTGTAACAAGCCATCAACGTC  
CAGGGTGGCCTGGCCAGCCTATTCCCCTTTCCCCACCCACACCCCACTTCCAGCCTGATGCCTCCT  
ACTCCAGCCTGTACCCCTTAGGGACATCGCGGTGGAGGAAGATCTCAGCAGCACTCCCCTAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG201191 representing NM\_013416  
 Red=Cloning site Green=Tags(s)

MAVAQQLRAESDFEQLPDDVAISANIADIEEKRGFTSHFVVFVIEVKTKGGSKYLIYRRYRQFHALQSKLE  
 ERFQPDSSALACTLPTLPAKVYVGVKQEIEMRIPALNAYMKSLLSLPVWVLMDEDVRIFFYQSPYDS  
 EQVPQALRRLRPTRKVKSVSPQNSVDRMAAPRAEALFDFTGNSKLELNFKAGDVIFLLSRINKDWLEG  
 TVRGATGIFPLSFVKILKDFPEEDDPTNWLRCYYYEDTISTIKSVAWEGGACPAFLPSLRPPPLTSPSHG  
 SLSHSKAPSGSQMSHNAVTSHQRPGWPGQPHSPFPHTPHFQPDASLLQPVTPLGTSRWKRKISAALPY

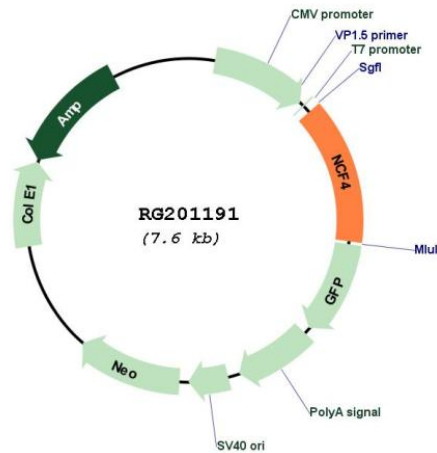
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_013416

ORF Size: 1044 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>
<b>RefSeq:</b>	<a href="#">NM_013416.2</a> , <a href="#">NP_038202.1</a>
<b>RefSeq Size:</b>	1631 bp
<b>RefSeq ORF:</b>	1047 bp
<b>Locus ID:</b>	4689
<b>UniProt ID:</b>	<a href="#">Q15080</a>
<b>Cytogenetics:</b>	22q12.3
<b>Domains:</b>	SH3, PX
<b>Protein Pathways:</b>	Leukocyte transendothelial migration
<b>Gene Summary:</b>	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]