

## Product datasheet for **RG210419**

### **Nkx2.2 (NKX2-2) (NM\_002509) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nkx2.2 (NKX2-2) (NM_002509) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nkx2.2
Synonyms:	NKX2.2; NKX2B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210419 representing NM_002509 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGCTGACCAACACAAGACGGGTTTTCGGTCAAGGACATCTTAGACCTGCCGGACACCAACGATG  
AGGAGGGCTCTGTGGCCGAAGTCCGGAGGAAGAGAACGAGGGGCCGAGCCAGCCAAGAGGGCCGGGCC  
GCTGGGGCAGGGCGCCCTGGACGCGGTGCAGAGCCTGCCCTGAAGAACCCTTCTACGACAGCAGCGAC  
AACCCGTACACGCGCTGGCTGGCCAGCACCGAGGGCCTCAGTACTCCCTGCACGGTCTGGCTGCCGGG  
CGCCCCCTCAGGACTCAAGCTCCAAGTCCCGGAGCCCTCGCCGACGAGTCACCGGACAATGACAAGGA  
GACCCCGGGCGGGGGGGACGCCGGAAGAAGCGAAAGCGGGGAGTGCTTTTCTCAAGCGCAGACC  
TACGAGCTGGAGCGGCGCTTTCGGCAGCAGCGGTACCTGTGCGGCCCGAGCGCGAACACCTGGCCAGCC  
TCATCCGCTCACGCCACGCAGGTCAAGATCTGGTTCAGAACCACCGCTACAAGATGAAGCGCGCCCG  
GGCCGAGAAAGGTATGGAGGTGACGCCCTGCCCTCGCCGCGCCGGTGGCCGTGCCCGTCTTGGTCAGG  
GACGGCAAACCATGTACGCGCTCAAAGCCAGGACCTGGCAGCCGCCACCTTCCAGGCGGGCATTCCCT  
TTTCTGCCTACAGCGCGAGTCGCTGCAGCACATGCAGTACAACGCCAGTACAGCTCGGCCAGCACCCC  
CCAGTACCCGACAGCACACCCCTGGTCCAGGCCAGCAGTGGACTTGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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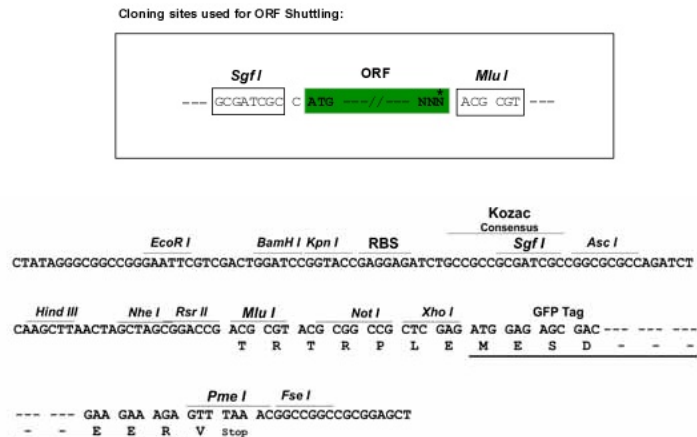
**Protein Sequence:** >RG210419 representing NM\_002509  
 Red=Cloning site Green=Tags(s)

MSLTNTKTGFSVKDILDLPDTNDEEGSVAEGPEEENEGPEPAKRAGPLGQGALDAVQSLPLKNPFYDSSD  
 NPYTRWLASTEGLQYSLHGLAAGAPPQDSSSKSPEPSADESPDNDKETPGGGGDAGKRRRRLVFSKAQT  
 YELERRFRQRYLSAPEREHLASLIRLTPTQVKIWFQNHRYKMKRARAEEKGMEVTLPLSPRRVAVPVLVR  
 DGKPCHALKAQDLAAATFQAGIPFSAYSAQSLQHMQYNAQYSSASTPQYPTAHLPLVQAQQQWTW

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002509

**ORF Size:** 819 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:**

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\\_002509.4](#)

**RefSeq Size:** 2092 bp

**RefSeq ORF:** 822 bp

**Locus ID:** 4821

**UniProt ID:** [O95096](#)

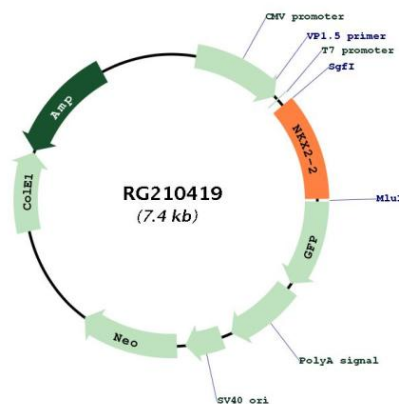
**Cytogenetics:** 20p11.22

**Protein Families:** Transcription Factors

**Protein Pathways:** Maturity onset diabetes of the young

**Gene Summary:** The protein encoded by this gene contains a homeobox domain and may be involved in the morphogenesis of the central nervous system. This gene is found on chromosome 20 near NKX2-4, and these two genes appear to be duplicated on chromosome 14 in the form of TITF1 and NKX2-8. The encoded protein is likely to be a nuclear transcription factor. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG210419