

## Product datasheet for RC224762

### nkx6.1 (NKX6-1) (NM\_006168) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** nkx6.1 (NKX6-1) (NM\_006168) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** nkx6.1  
**Synonyms:** NKX6.1; NKX6A  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC224762 representing NM\_006168  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTAGCGGTGGGGCAATGGAGGGCACCCGGCAGAGCGCATTCTGCTCAGCAGCCCTCCCCTGGCCG  
 CCCTGCACAGCATGGCCGAGATGAAGACCCCGTGTACCCTGCCGCGTATCCCCGCTGCCTGCCGGCC  
 CCCCTCCTCCTCGTCCTCGTCGTCTCTCCTCGTCGCCCTCCCCGCTCTGGGCACCCACAACCCAGGC  
 GGCTGAAGCCCCGGCCACGGGGGGCTCTCATCCCTCGGCAGCCCCCGCAGCAGCTCTCGGCCGCCA  
 CCCACACGGCATCAACGATATCCTGAGCCGGCCCTCCATGCCCGTGGCCTCGGGGGCCGCCCTGCCCTC  
 CGCTCGCCCTCCGGTTCCTCCTCCTCCTTCTCGTCCGCTCTGCCTCCTCCGCTCTGCCCGCCG  
 GCGGTGCTGCCGCGCCGACGCCGCGCTCATCCCCGGCGGGGCTGCTGGCCGGACTGCCACGCTTTA  
 GCAGCCTGAGCCCGCCGCGCCGCGCCGGGCTCTACTTCAGCCCCAGCCGCGGGCGGTGGCCCGGT  
 GGGCCGGTACCCAAGCCGCTGGCTGAGCTGCCTGGCCGACGCCATCTTCTGGCCGGAGTGATGCA  
 AGCCCGCCCTGGAGGGACGCACGCTGGCTGTACCCCTCATCAAGGATCCATTTTGGTGGACAAAGAC  
 GGAAGAGAAAACACGAGACCCACTTTTTCCGGACAGCAGATCTTCGCCCTGGAGAAGACTTTCAACA  
 AACAAAATACTTGGCGGGGCCGAGAGGGCTCGTTTGGCTATTCTGTTGGGATGACAGAGAGTCAGGTC  
 AAGTCTGGTTCCAGAACCAGCCGACCAAGTGGAGGAAGAAGCAGCTGCCGAGATGGCCACGGCCAA  
 AGAAGCAGGACTCGGAGACAGAGCGCTCAAGGGGGCTCGGAGAACGAGGAAGAGGACGACGACTACAA  
 TAAGCCTCTGGATCCCAACTCGGACGACGAGAAAATCACGACGCTGTTGAAGAAGCACAAAGTCCAGCAG  
 GGCGGGCGGGCCCTCTACTGCACGCTCCGAGCCGGAGAGCTCATCC

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RC224762 representing NM\_006168  
Red=Cloning site Green=Tags(s)

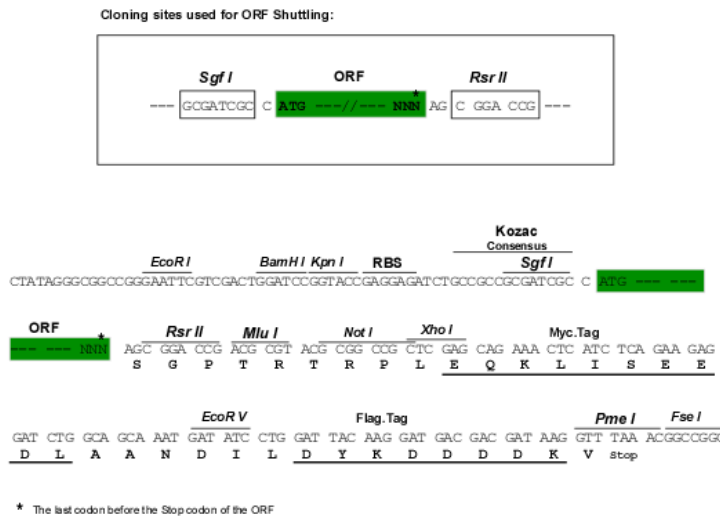
MLAVGAMEGTRQSAFLLSSPPLAALHSMAMKTPLYPAAYPPLPAGPPSSSSSSSSSSSSPPLGTHNPG  
 GLKPPATGGLSSLGSPQQLSAATPHGINDILSRPSMPVASGAALPSASPSGSSSSSSASASSASAAA  
 AAAAAAAAAASSPAGLLAGLPRFSSLSPPPPPGLYFSPSAAVAAVGRYPKPLAELPGRTPIFWPGVMQ  
 SPPWRDARLACTPHQGSILLDKDGRKRKTRPTFSGQQIFALEKTFEQTKYLAGPERARLAYSLGMTESQV  
 KVWFQNRRTKWRKKHAAEMATAKKKQDSETERLKGASENEEEDDDYNKPLDPNSDDEKITQLLKKHKSSS  
 GGGGGLLLHASEPESSS

SGPTRTRRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6187\\_b12.zip](https://cdn.origene.com/chromatograms/mk6187_b12.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_006168

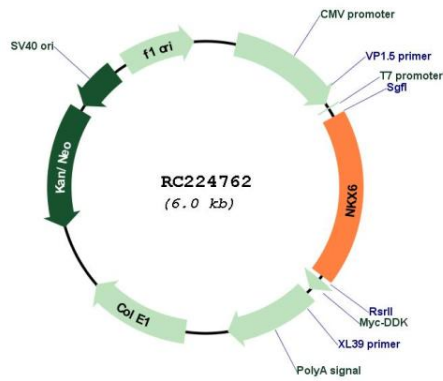
**ORF Size:** 1101 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

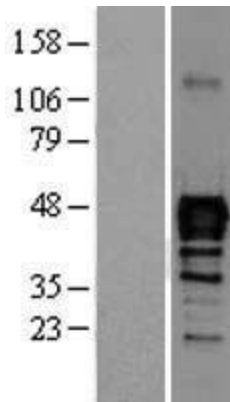
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_006168.2</a> , <a href="#">NP_006159.2</a>
<b>RefSeq Size:</b>	1116 bp
<b>RefSeq ORF:</b>	1104 bp
<b>Locus ID:</b>	4825
<b>UniProt ID:</b>	<a href="#">P78426</a>
<b>Cytogenetics:</b>	4q21.23
<b>Protein Families:</b>	Transcription Factors
<b>Protein Pathways:</b>	Maturity onset diabetes of the young
<b>MW:</b>	37.7 kDa
<b>Gene Summary:</b>	In the pancreas, NKX6.1 is required for the development of beta cells and is a potent bifunctional transcription regulator that binds to AT-rich sequences within the promoter region of target genes lype et al. (2004) [PubMed 15056733].[supplied by OMIM, Mar 2008]

Product images:



Circular map for RC224762



Western blot validation of overexpression lysate (Cat# [LY401859]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224762 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).