

Product datasheet for **RC210374**

Nkx3.1 (NKX3-1) (NM_006167) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nkx3.1 (NKX3-1) (NM_006167) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nkx3.1
Synonyms:	BAPX2; NKX3; NKX3.1; NKX3A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210374 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTCAGGGTTCGGAGCCGCGCCCGGGGAGGCGAAAGCGGAGGGGGCCGCGCCGCCGACCCGTCCA
AGCCGCTCACGTCCTTCCTCATCCAGGACATCCTGCGGGACGGCGCAGCGGCAAGGCGGCCGACGAG
CAGCCAGAGACAGCGCGACCCGGAGCCGGAGCCAGAGCCAGAGGGAGGACGCAGCCGCGCCGGG
GCGCAGAACGACCAGCTGAGCACCGGGCCCGCGCCGCGCGGAGGAGCCGAGACGCTGGCAGAGACCG
AGCCAGAAAGGCACTTGGGTCTTATCTGTTGGACTCTGAAAACACTTCAGGCGCCCTTCCAAGGCTTCC
CCAAACCCCTAAGCAGCCGAGAAGCGCTCCCGAGCTGCCTTCTCCACACTCAGGTGATCGAGTTGGAG
AGGAAGTTCAGCCATCAGAAGTACCTGTGCGGCCCTGAACGGGCCACCTGGCCAAGAACCTCAAGCTCA
CGGAGACCCAAGTGAAGATATGGTTCCAGAACAGACGCTATAAGACTAAGCGAAAGCAGCTCTCCTCGGA
GCTGGGAGACTTGGAGAAGCACTCCTCTTGGCGGCCCTGAAAGAGGAGGCTTCTCCGGGCTCCCTG
GTCTCCGTGTATAACAGCTATCCTTACTACCCATACCTGTACTGCGTGGGAGCTGGAGCCAGCTTTT
GG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC210374 protein sequence
 Red=Cloning site Green=Tags(s)

MLRVPEPRPGEAKAEGAAPPTPSKPLTSFLIQDILRDGAQRQGGRTSSQRQDPEPEPEPEPEGGRSRAG
 AQNDQLSTGPRAAPEEAETLAETEPERHLGSYLLDSENTSGALPRLPQTPKQPQKRSRAAFSHTQVIELE
 RKFSHQKYL SAPERAHLAKNLKLTETQVKIWFQNRRYKTKRKQLSSELGDLEKHSPLALKEEAFSRASL
 VSVYNSYPYYPYLYCVGSWSPAFW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6006_b11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006167

ORF Size: 702 bp

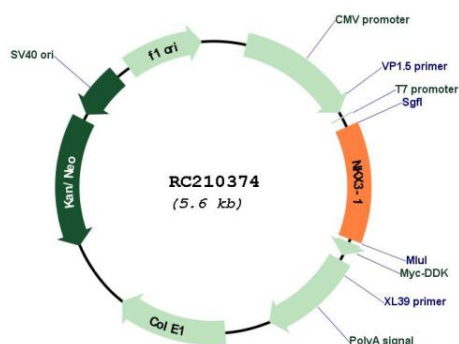
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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](#)

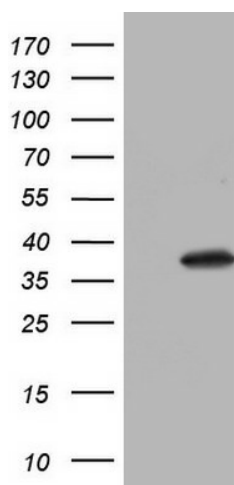
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_006167.4</u>
RefSeq Size:	3281 bp
RefSeq ORF:	705 bp
Locus ID:	4824
UniProt ID:	<u>Q99801</u>
Cytogenetics:	8p21.2
Domains:	homeobox
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Pathways in cancer, Prostate cancer
MW:	26.4 kDa
Gene Summary:	This gene encodes a homeobox-containing transcription factor. This transcription factor functions as a negative regulator of epithelial cell growth in prostate tissue. Aberrant expression of this gene is associated with prostate tumor progression. Alternate splicing results in multiple transcript variants of this gene. [provided by RefSeq, Jan 2012]

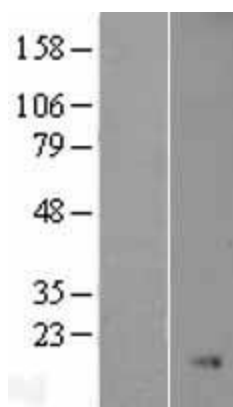
Product images:



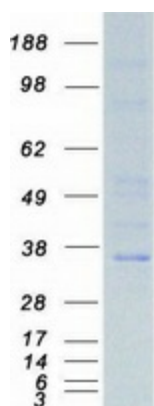
Circular map for RC210374



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NKX3-1 (Cat# RC210374, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NKX3-1 (Cat# [TA805425]). Positive lysates [LY401858] (100ug) and [LC401858] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401858]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210374 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NKX3-1 protein (Cat# [TP310374]). The protein was produced from HEK293T cells transfected with NKX3-1 cDNA clone (Cat# RC210374) using MegaTran 2.0 (Cat# [TT210002]).