

Product datasheet for **RC206921**

PKNOX2 (NM_022062) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKNOX2 (NM_022062) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PKNOX2
Synonyms:	PREP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC206921 representing NM_022062
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATGCAACATGCCTCCCCAGCCCCGCTCTGACGATGATGGCCACGCAGAATGTCCGCCCCACCCCT
 ACCAGGACAGCCACAGATGACGGCAACCGCCAGCCACCCTCCAAGGCCAGGCTGTCCACATCTCTGC
 CCCCTCAGCTGTGTCAGCACACCTGTGCCAGTGCCCCCATCGACCCCAAGGCCAGCTGGAGGTGAC
 AAGCGAGCTGTATACAGGCACCCTCTTTTCCGCTCCTGACGCTGCTGTTTGAGAAATGTGAACAGGCCA
 CCCAGGGCTCTGAGTGCATCACCTCCGCCAGCTTTGATGTGGACATCGAGAACTTTGTCCACCAGCAGGA
 ACAGGAGCACAAACCTTCTTCAGCGATGACCCAGAACTGGACAATCTGATGGTGAAGGCAATCCAGGTC
 CTGAGAATCCACCTGCTGGAGCTGGAGAAAGTCAATGAACTCTGCAAGGACTTTTGTAAACGTTACATCA
 CCTGCCTCAAAACCAAGATGCACAGCGACAACCTGCTCAGGAATGATCTAGGGGGGCCCTACTCCCCAA
 CCAGCCCTCCATCAACCTTCACTCCAGGACCTCTGCAGAATTCCCCAATTCCATGTCCGGAGTCTCC
 AATAACCCCCAGGGGATTGTGGTCCCAGCTCAGCGCTCCAGCAGGGCAACATCGCCATGACAACCGTCA
 ACTCACAAGTTGTGTGAGGTGGAGCCTTATACCAACCGGTTACCATGGTAACCTCCCAGGGTCAGGTGGT
 CACCCAAGCAATCCCCAGGGAGCCATCCAGATCCAGAACACACAGGTTAACCTTGACCTCACCTCCCTC
 CTGGACAATGAGGATAAGAAGTCCAAGAACAACGAGGAGTCTTGCCCAAGCATGCCACCAATATAATGC
 GTTCTTGGCTCTTCCAGCATCTCATGACCCCTACCCACGAGGATGAGAAGAGGCAGATCGCAGCCCA
 GACCAACCTCACCTCCTGCAAGTAAACAACCTGGTTCATCAATGCCCGGAGGCGCATCTGCAGCCCATG
 CTTGATGCCAGCAACCCAGATCCTGCCCCAAAGCCAAGAAGTCAAGTCTCAGCACCGGCCACCCAAA
 GATTCTGGCCCAACTCCATCGCTGCGGGGGTGTGCAGCAGCAGGGCGGTGCCCAAGGACAAACCCGA
 TGGTTCATCAACTTGGACAACCTGCAGTCCCTGTCTCAGACAGTGCCACCATGGCCATGCAGCAGGCT
 ATGATGGCTGCACAGATGACTATTGGATGGGACAGAAGAAGAGGATGAGGATGAGATGGAAGAGGAGG
 AGGAGGAGCTGGAGGAGGAGTGCAGCAGCTGCAGACGACAAATGTCAGCGACCTGGGCTTGAACACAG
 TGACTCCCTGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206921 representing NM_022062
 Red=Cloning site Green=Tags(s)

MMQHASPAPAL TMMATQNVPPPPYQDSPQMTATAQPPSKAQAVHISAPSAASTPVPSAPIDPQAQLEAD
 KRAVYRHPLFPLLTLLFEKCEQATQSECITSASFVDIENFVHQEQEHKPFSDDPELDNLVVKAIQV
 LRIHLLLEKVNELCKDFCNRYITCLKTKMHSNLLRNDLGGPYSPNQPSINLHSDLLQNSPNSMSGVS
 NNPQGI VVPASALQQGNIAMTTVNSQVVS G G A L Y Q P V T M V T S Q G Q V V T Q A I P Q G A I Q I Q N T Q V N L D L T S L
 LDNEDKKS K N K R G V L P K H A T N I M R S W L F Q H L M H P Y P T E D E K R Q I A A Q T N L T L L Q V N N W F I N A R R R I L Q P M
 LDASNPDPAPKAKKIKSQRPTQRFWPNSIAAGVLQQQGGAPGTNP DGSINLDNLQSLSSDSATMAMQQA
 MMAAHDDSLDGT E E E D E M E E E E E E E E V D E L Q T T N V S D L G L E H S D S L E

TRTRPLE**QKL**I**SEED**LA**ND**IL**DYK**DDDD**KV**

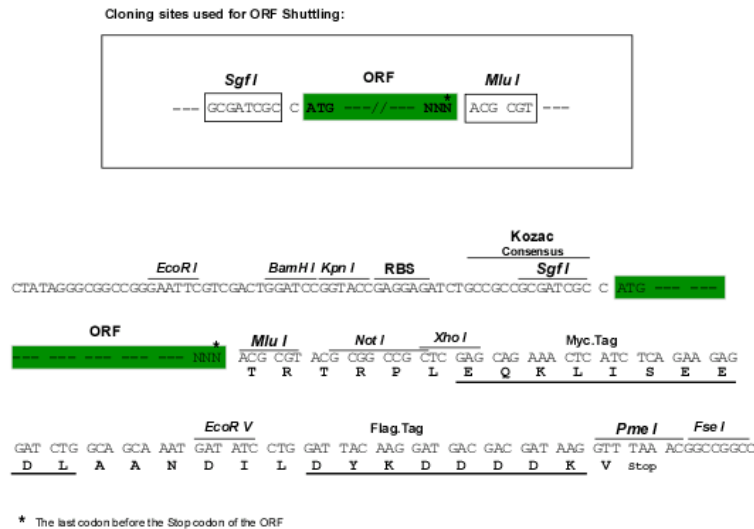
Chromatograms:

https://cdn.origene.com/chromatograms/mg3647_c05.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_022062

ORF Size: 1413 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_022062.2](#), [NP_071345.2](#)

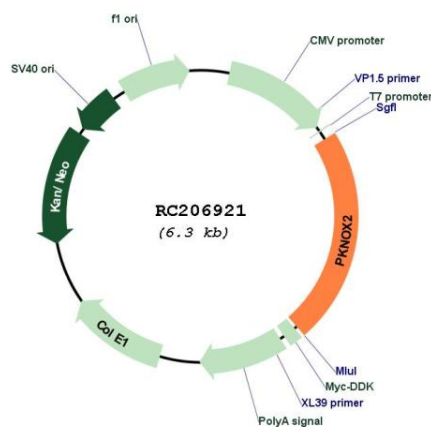
RefSeq Size: 3730 bp

RefSeq ORF: 1419 bp

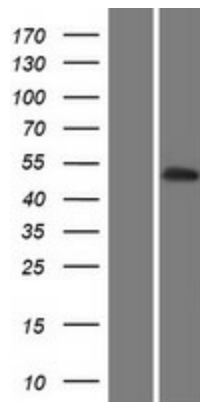
Locus ID: 63876

UniProt ID:	<u>Q96KN3</u>
Cytogenetics:	11q24.2
Protein Families:	Transcription Factors
MW:	51.8 kDa
Gene Summary:	Homeodomain proteins are sequence-specific transcription factors that share a highly conserved DNA-binding domain and play fundamental roles in cell proliferation, differentiation, and death. PKNOX2 belongs to the TALE (3-amino acid loop extension) class of homeodomain proteins characterized by a 3-amino acid extension between alpha helices 1 and 2 within the homeodomain (Imoto et al., 2001 [PubMed 11549286]).[supplied by OMIM, Oct 2009]

Product images:



Circular map for RC206921



Western blot validation of overexpression lysate (Cat# [LY411810]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206921 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).