

Product datasheet for RC218386

PAX2 (NM_003988) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAX2 (NM_003988) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAX2
Synonyms:	FSGS7; PAPRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218386 representing NM_003988 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGGATATGCACTGCAAAGCAGACCCCTTCTCCGCGATGCACCCAGGGCACGGGGGTGTGAACCAGCTCG
GGGGGGTGTGGTGAACGGCCGGCCCTACCCGACGTGGTGAGGCAGCGCATCGTGGAGCTGGCCACCA
GGGTGTGCGGCCCTGTGACATCTCCCGCAGCTGCGGGTCAAGCCAGGCTGTGTCAGCAAATCCTGGG
AGTACTACGAGACCGGCAGCATCAAGCCGGGTGTGATCGGTGGTCCAAGCCAAAGTGGCGACGCCA
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GCTCCTGGCCGAGGGCATCTGTGACAATGACACAGTGCCAGCGTCTTCCATCAACAGAATCATCCGG
ACCAAAGTTCAGCAGCCTTCCACCCAACGCCGATGGGGCTGGGACAGGAGTGACCGCCCTGGCCACA
CCATTGTTCCAGCAGCGCTCCCTCCTGTTCCAGCGCTCCAATGACCCAGTGGGATCCTACTCCAT
CAATGGGATCCTGGGATTCCCTCGCTCCAATGGTGAAGAGGAAACGTGATGAAGATGTGTCTGAGGGC
TCAGTCCCAATGGAGATTCAGAGTGGTGTGGACAGTTTGGGAAGCACTTGGCAGCTGACACCTTCA
CCCAGCAGCAGCTGGAAGCTTTGGATCGGGTCTTTGAGCGTCTTCTACCCTGACGTCTTCCAGGCATC
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AAGTCGAGTCTATCTGCATCCACCAACCCTGAGCTGGGCAGCAAGTGTGACGACACAGACATACCCCA
TTGTGACTGGTCGTGACATGGCGAGCACCCTCTGCCTGGTTACCCCTCACGTGCCCCCACTGGCCA
GGGAAGCTACCCACCTCCACCTGGCAGGAATGGTGCCTGAGGCTGCAGTTGGTCCCTCATCTCCCTC
ATGAGCAAGCCGGGGAGGAAGCTTGAGAAGTGCCCTTGTGTGCAACCCACTGGAGCGAGTTCTCCGG
CAACCCGTACAGCCACCCCAAGTACACGGCTACAACGAGGCTTGAGATTAGCAACCCCGCTTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC218386 representing NM_003988
Red=Cloning site Green=Tags(s)

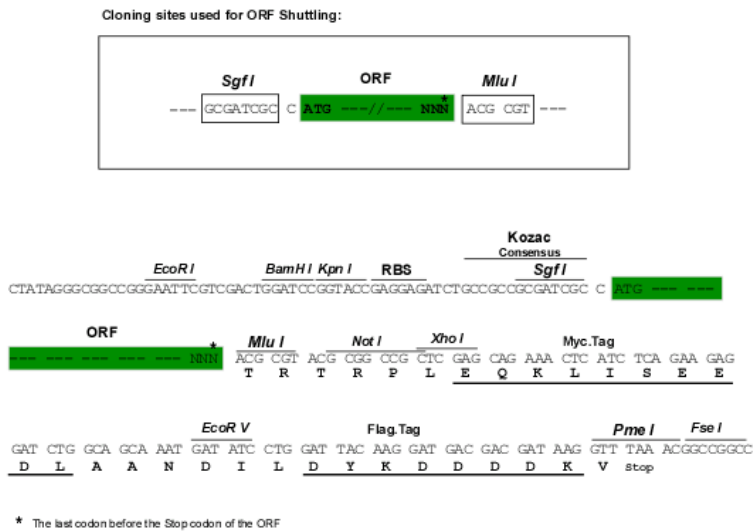
MDMHCKADPF SAMHPGHGGVNQLGGVFNVRPLPDVVRQRIVELAHQGVRPCDISRQLRVSHGCVSKILG
 RYYETGSIKPGVIGGSKPKVATPKVVDKIAEYKRQNPTMFAWEIRDRLLAEGICDNDTVPSVSSINRIIR
 TKVQQPFHPTPDGAGTGVTAPGHTIVPSTASPPVSSASNDPVGYSINGILGIPRSNGEKRRDEDVSEG
 SVPNGDSQSGVDSL RKHLRADTF TQQQLEALDRVFERPSYPDFVQASEHIKSEQGNEYSLPALTPGLDEV
 KSSL SASTNPELGSNVSGTQTYPVVTGRDMASTTLPGYPPHVPPTGQGSYPTSTLAGMVPEAAVGPSSSL
 MSKPGRKLAEVPCVQPTGASSPATRTATPSTRPTTRLGDSATPPY

TRTRPLEQKLISEEDLAANDILDYKDDDDKVK

Chromatograms: https://cdn.origene.com/chromatograms/mg4001_c09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003988

ORF Size: 1188 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_003988.5](#)

RefSeq Size: 4290 bp

RefSeq ORF: 1191 bp

Locus ID: 5076

UniProt ID: [Q02962](#)

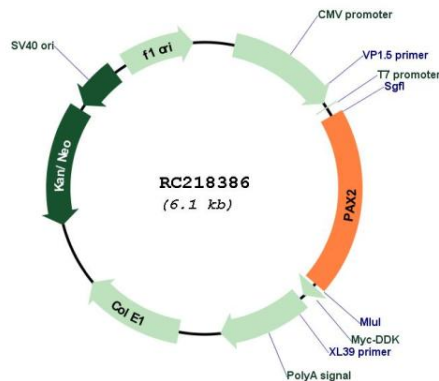
Cytogenetics: 10q24.31

Protein Families: Druggable Genome

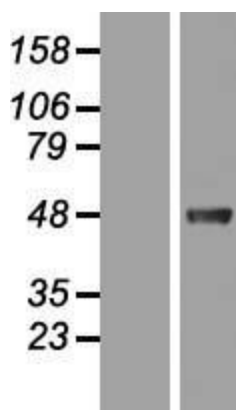
MW: 41.8 kDa

Gene Summary: PAX2 encodes paired box gene 2, one of many human homologues of the *Drosophila melanogaster* gene *prd*. The central feature of this transcription factor gene family is the conserved DNA-binding paired box domain. PAX2 is believed to be a target of transcriptional suppression by the tumor suppressor gene WT1. Mutations within PAX2 have been shown to result in optic nerve colobomas and renal hypoplasia. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Dec 2014]

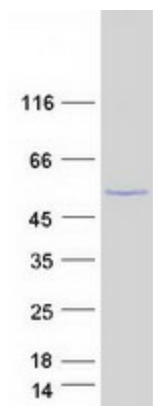
Product images:



Circular map for RC218386



Western blot validation of overexpression lysate (Cat# [LY418301]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218386 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PAX2 protein (Cat# [TP318386]). The protein was produced from HEK293T cells transfected with PAX2 cDNA clone (Cat# RC218386) using MegaTran 2.0 (Cat# [TT210002]).