

Product datasheet for RC212112

PAX2 (NM_000278) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAX2 (NM_000278) 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:	>RC212112 representing NM_000278 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATATGCACTGCAAAGCAGACCCCTTCTCCGCGATGCACCGGCACGGGGTGTGAACCAGCTCGGGG
GGGTGTTTGTGAACGGCCGGCCCTACCCGACGTGGTGAGGCAGCGCATCGTGGAGCTGGCCACCAGGG
TGTGCGGCCCTGTGACATCTCCCGCAGCTGCGGGTCAGCCACGGCTGTGTGAGCAAAATCTGGGCAGG
TACTACGAGACCGGCAGCATCAAGCCGGGTGTGATCGGTGGCTCCAAGCCAAAGTGGCAGCAGCCAAAG
TGGTGGACAAGATTGCTGAATACAAACGACAGAACCCGACTATGTTCCGCTGGGAGATTCGAGACCGGCT
CCTGGCCGAGGGCATCTGTGACAATGACACAGTGCACGCGTCTCTTCCATCAACAGAATCATCCGACC
AAAGTTACAGCAGCCTTCCACCCAAACGCCGGATGGGGCTGGGACAGGAGTGACCGCCCTGGCCACACCA
TTGTTCCAGCAGCGCCTCCCCTCCTGTTTCCAGCGCCTCCAATGACCCAGTGGGATCCTACTCCATCAA
TGGGATCCTGGGATTCCTCGTCCAAATGGTGAGAAGAGGAAACGTGATGAAGATGTGTCTGAGGGCTCA
GTCCCAATGGAGATCCAGAGTGGTGTGGACAGTTTGGGAAGCACTTGGCAGCTGACACCTTACCC
AGCAGCAGCTGGAAGCTTTGGATCGGGTCTTTGAGCGTCTTCTACCCAGCTTCCAGGCATCAGA
GCACATCAAATCAGAACAGGGGAACGAGTACTCCCTCCAGCCCTGACCCCTGGGCTTGATGAAGTCAAG
TCGAGTCTATCTGCATCCACCAACCTGAGCTGGCAGCAACGTGTCAGGCACACAGACATACCCAGTTG
TGACTGGTCTGACATGGCGAGCACCACTCTGCCTGGTTACCCCTCAGGTGCCCCACTGGCCAGGG
AAGCTACCCACCTCCACCTGGCAGGAATGGTGCCTGGGAGCGAGTTCTCCGGCAACCCGTACAGCCAC
CCCCAGTACAGGCCTACAACGAGGCTTGGAGATTGAGCAACCCCGCCTTACTAAGTTCCCTTATTATT
ATAGTGCCGCCCCCGGGCTCCGCCCTGCCGCTGCTGCCGCTGCCTATGACCGCCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC212112 representing NM_000278
Red=Cloning site Green=Tags(s)

MDMHCKADPF SAMHRHGGVNLGGVFNVRPLPDVVRQRIVELAHQGVPCDISRQLRVSHGCVSKILGR
 YYETGSIKPGVIGGSKPKVATPKVVDKIAEYKRQNTMFAWEIRDRLAEGICDNDTPSVSSINRIIRT
 KVQQPFHPTPDGAGTGTAPGHTIVPSTASPPVSSASNDPVGYSINGILGIPRSNGEKRRKRDVSEGS
 VPNGDSQSGVDLSLRKHLRADTFTQQLEALDRVFERPSYPDVVFQASEHIKSEQGNEYSLPALTPGLDEVK
 SSLSASTNPELGSNVSGTQTYPVVTGRDMASTTLPGYPPHPVPTGQGSYPTSTLAGMVPGSEFSGNPYSH
 PQYTAYNEAWRFSNPALLSSPYYYSAAPRGSAPAAAAAAYDRH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6097_g10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000278

ORF Size: 1179 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_000278.5](#)

RefSeq Size: 4207 bp

RefSeq ORF: 1185 bp

Locus ID: 5076

UniProt ID: [Q02962](#)

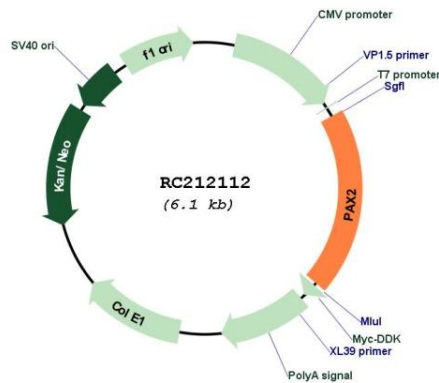
Cytogenetics: 10q24.31

Protein Families: Druggable Genome

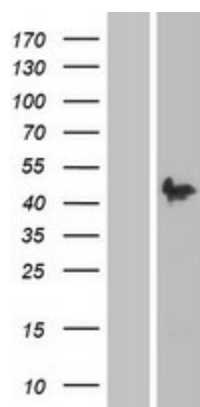
MW: 41.9 kDa

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]

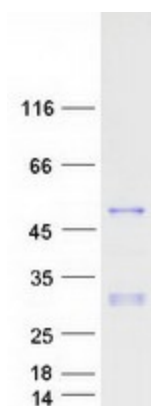
Product images:



Circular map for RC212112



Western blot validation of overexpression lysate (Cat# [LY400106]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212112 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PAX2 protein (Cat# [TP312112]). The protein was produced from HEK293T cells transfected with PAX2 cDNA clone (Cat# RC212112) using MegaTran 2.0 (Cat# [TT210002]).