

## **Product datasheet for SC300041**

## PAX2 (NM\_000278) Human Untagged Clone

## **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** PAX2 (NM\_000278) Human Untagged Clone

Tag: Tag Free Symbol: PAX2

Synonyms: FSGS7; PAPRS

**Mammalian Cell** 

Selection:

Neomycin

Vector: PCMV6-Neo

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF within SC300041 sequence for NM\_000278 edited (data generated by NextGen

Sequencing)

ATGGATATGCACTGCAAAGCAGACCCCTTCTCCGCGATGCACCNNNGGCACGGGGGTGTG AACCAGCTCGGGGGGGTGTTTGTGAACGGCCGGCCCCTACCCGACGTGGTGAGGCAGCGC ATCGTGGAGCTGGCCCACCAGGGTGTGCGGCCCTGTGACATCTCCCGGCAGCTGCGGGTC AGCCACGGCTGTGTCAGCAAAATCCTGGGCAGGTACTACGAGACCGGCAGCATCAAGCCG GGTGTGATCGGTGGCTCCAAGCCCAAAGTGGCGACGCCCAAAGTGGTGGACAAGATTGCT GAATACAAACGACAGAACCCGACTATGTTCGCCTGGGAGATTCGAGACCGGCTCCTGGCC GAGGGCATCTGTGACAATGACACAGTGCCCAGCGTCTCTTCCATCAACAGAATCATCCGG ACCAAAGTTCAGCAGCCTTTCCACCCAACGCCGGATGGGGCTGGGACAGGAGTGACCGCC CCTGGCCACACCATTGTTCCCAGCACGGCCTCCCCTCCTGTTTCCAGCGCCTCCAATGAC CCAGTGGGATCCTACTCCATCAATGGGATCCTGGGGATTCCTCGCTCCAATGGTGAGAAG AGGAAACGTGATGAAGATGTCTCGAGGGCTCAGTCCCCAATGGAGATTCCCAGAGTGGT GTGGACAGTTTGCGGAGCACTTGCGAGCTGACACCTTCACCCAGCAGCAGCTGGAAGCT TTGGATCGGGTCTTTGAGCGTCCTTCCTACCCTGACGTCTTCCAGGCATCAGAGCACATC AAATCAGAACAGGGGAACGAGTACTCCCTCCCAGCCCTGACCCCTGGGCTTGATGAAGTC AAGTCGAGTCTATCTGCATCCACCAACCCTGAGCTGGGCAGCAACGTGTCAGGCACACAG ACATACCCAGTTGTGACTGGTCGTGACATGGCGAGCACCACTCTGCCTGGTTACCCCCCT CACGTGCCCCCACTGGCCAGGGAAGCTACCCCACCTCCACCCTGGCAGGAATGGTGCCT GGGAGCGAGTTCTCCGGCAACCCGTACAGCCACCCCCAGTACACGGCCTACAACGAGGCT TGGAGATTCAGCAACCCCGCCTTACTAAGTTCCCCTTATTATTATAGTGCCGCCCCCCGG

TCCGCCCCTGCCGCTGCCTGCCTATGACCGCCACTAG

Clone variation with respect to NM\_000278.3

44 c=>n;45 a=>n;46 g=>n

**Restriction Sites:** Please inquire



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## PAX2 (NM\_000278) Human Untagged Clone - SC300041

**ACCN:** NM\_000278

**Insert Size:** 1300 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** The open reading frame of this TrueClone was fully sequenced and found to differ from the

protein associated to this reference by three amino acids.

**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: <u>NM 000278.2</u>, <u>NP 000269.2</u>

10q24.31

 RefSeq Size:
 4207 bp

 RefSeq ORF:
 1182 bp

 Locus ID:
 5076

 UniProt ID:
 Q02962

Cytogenetics:

**Protein Families:** Druggable Genome

**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 supression 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]

Transcript Variant: This variant (b) lacks an alternate in-frame exon and uses an alternate splice site in the 3' coding region, compared to variant e. This results in a protein (isoform b) with a shorter, distinct C-terminus compared to isoform e. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments. CCDS Note: The coding region has been updated to add an additional glycine residue in the protein C-terminal region, supported by the available

transcript and conservation data.