

## Product datasheet for **RG211996**

### **PAX2 (NM\_003990) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PAX2 (NM\_003990) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** PAX2  
**Synonyms:** FSGS7; PAPRS  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG211996 representing NM\_003990  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATGCACTGCAAAGCAGACCCCTTCTCCGCGATGCACCCAGGGCACGGGGTGTGAACCAGCTCG  
GGGGGTGTTGTGAACGGCCGGCCCTACCCGACGTGGTGAGGCAGCGCATCGTGGAGCTGGCCACCA  
GGGTGTGCGGCCCTGTGACATCTCCCGCAGCTGCGGGTCAAGCCAGGCTGTGTGACAAAATCCTGGC  
AGGTACTACGAGACCGGCAGCATCAAGCCGGGTGTGATCGGTGGTCCAAGCCAAAGTGGCGACGCCA  
AAGTGGTGGACAAGATTGCTGAATACAAACGACAGAACCAGCTATGTTCCGCTGGGAGATTCGAGACCG  
GCTCCTGGCCGAGGGCATCTGTGACAATGACACAGTGCCAGCGTCTTCCATCAACAGAATCATCCGG  
ACCAAAGTTCAGCAGCCTTCCACCCAACGCCGATGGGGCTGGGACAGGAGTGACCGCCCTGGCCACA  
CCATTGTTCCAGCAGCGCTCCCTCCTGTTCCAGCGCTCCAATGACCCAGTGGGATCCTACTCCAT  
CAATGGGATCCTGGGATTCTCGCTCCAATGGTGAAGAGGAAACGTGATGAAGTTGAGGTATACACT  
GATCCTGCCACATTAGAGGAGGTGGAGTTTGCATCTGGTCTGGACTTTAAGAGATGTGTCTGAGGGCT  
CAGTCCCCAATGGAGATCCCAGAGTGGTGTGGACAGTTTGGGAAGCACTTGGCAGCTGACACCTTAC  
CCAGCAGCAGCTGGAAGCTTTGGATCGGGTCTTTGAGCGTCTTCCCTACCCTGACGTCTTCCAGGCATCA  
GAGCAGATCAAAATCAGAACAGGGGAACGAGTACTCCCTCCAGCCCTGACCCCTGGGCTTGATGAAGTCA  
AGTCGAGTCTATCTGCATCCACCAACCCTGAGCTGGGCAGCAACGTGTCAGGCACACAGACATACCCAGT  
TGTGACTGGTCTGACATGGCGAGCACCCTCTGCCTGTTACCCCTCACGTGCCCCCACTGGCCAG  
GGAAGCTACCCACCTCCACCCTGGCAGGAATGGTGCCTGGGAGCGAGTTCTCCGCAACCCGTACAGCC  
ACCCCACTACACGGCTACAACGAGGCTTGGAGATTCAGCAACCCCGCTTACTAATGCCGCCCCCGG  
TCCGCCCTGCCGCTGCTGCCGCTGCCTATGACCGCCACTAGTTACCGCGGGACCACATCAAGCTTCAG  
GCCGACAGCTTCGGCCTCCACATCGTCCCGTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG211996 representing NM\_003990  
 Red=Cloning site Green=Tags(s)

MDMHCKADPFSAMHPGHGGVNQLGGVFNVRPLPDVVRQRIVELAHQGVRPCDISRQLRVSHGCVSKILG  
 RYYETGSIKPGVIGGSKPKVATPKVVDKIAEYKRQNPTMFAWEIRDLLAEGICDNDTVPSVSSINRIIR  
 TKVQQPFHPTPDGAGTGTAPGHTIVPSTASPPVSSASNDPVGYSINGILGIPRSNGEKRRKRDVEVYT  
 DPAHIRGGGGLHLVWTLRDVSEGSYPNGDSQSGVDLRLKHLRADTFTQQLEALDRVFERPSYDPVFAQS  
 EHIKSEQGNEYSLPALTPGLDEVKSSLSASTNPELGSNVSGTQTYPVVTGRDMASTTLPGYPPHPPTGQ  
 GSYPTSTLAGMVGSEFSGNPYSHPQYAYNEAWRFSNPALLMPPPGPPLPLPLPMTATSYRGDHIKLG  
 ADSFGLHIVPV

TRTRPLE – GFP Tag – V

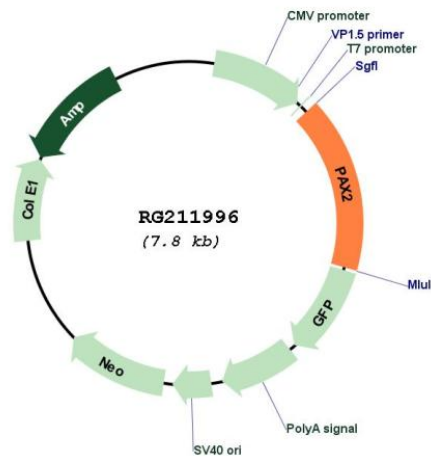
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:**

NM\_003990

<b>ORF Size:</b>	1293 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_003990.3</a>
<b>RefSeq Size:</b>	4257 bp
<b>RefSeq ORF:</b>	1299 bp
<b>Locus ID:</b>	5076
<b>UniProt ID:</b>	<a href="#">Q02962</a>
<b>Cytogenetics:</b>	10q24.31
<b>Protein Families:</b>	Druggable Genome
<b>Gene Summary:</b>	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]