

## Product datasheet for **RG219852**

### **PAX3 (NM\_181458) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PAX3 (NM_181458) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PAX3
Synonyms:	CDHS; HUP2; WS1; WS3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG219852 representing NM\_181458  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACCACGCTGGCCGGCGCTGTGCCAGGATGATGCGGCCGGGCCGGGGCAGAAGTACCCGCGTAGCG  
 GGTTCCCCTGGAAGTGTCCACTCCCCTCGGCCAGGGCCGCGTCAACCAGCTCGGCGGTGTTTTATCAA  
 CGGCAGGCCGCTGCCAACCACATCCGCCACAAGATCGTGGAGATGGCCACCACGGCATCCGGCCCTGC  
 GTCATCTCGCGCCAGCTGCGCGTGTCCACGGCTGCGTCTCCAAGATCCTGTGCAGGTACCAGGAGACTG  
 GCTCCATACGTCCTGGTCCATCGGCGGCAGCAAGCCCAAGGTGACAACGCCTGACGTGGAGAAGAAAAAT  
 TGAGGAATACAAAAGAGAGAACCCGGGCATGTTACAGTGGGAAATCCGAGACAAATTAAGGACGCG  
 GTCTGTGATCGAAACACCGTGCCGTGAGTCCATCAGCCGCATCCTGAGAAGTAAATTCGGGAAAG  
 GTGAAGAGGAGGAGGCCACTTGGAGAGGAAGGAGGCAGAGGAAAGCGAGAAGAAGGCCAAACACAGCAT  
 CGACGGCATCCTGAGCGAGCGAGCCTCAGCACCCAATCAGATGAAGGCTCTGATATTGACTCTGAACCA  
 GATTTACCACTAAAGAGGAAACAGCGCAGAAGCCGAACACCTTCACAGCAGAACAGCTGGAGGAACTGG  
 AGCGTGCTTTTGAGAGAAGTATTACCTGACATTTATACTAGGGAGGAACTGGCCAGAGGGCGAAGCT  
 CACCGAGGCCCGAGTACAGGTCTGGTTTAGCAACCGCCGTGCAAGATGGAGGAAGCAAGCTGGGGCAAT  
 CAACTGATGGCTTTCAACCATCTCATTCCCGGGGGTTCCCTCCCACTGCCATGCCGACCTTGCCAACTG  
 ACCAGCTGTGGAGACCTTACCAGCCACATCTATTCCACAAGCTGTGTGAGTCCCAGCAGCACCGT  
 TCACAGACCTCAACCGCTTCTCCAAGCACTGTACACCAAGCAGGATTCCTTCCAACCCAGACAGCAGC  
 TCTGCCTACTGCCTCCCAAGCAGCAGGATGGATTTCCAGCTATACAGACAGCTTTGTGCCTCCGTCGG  
 GGCCCTCAACCCATGAACCCACCATTGGCAATGGCCTCTCACCTCAGGTAATGGGACTCCTGACCAA  
 CCACGGTGGGGTACCTCATCAGCCCAAGACTGATTACGCGCTCTCCCTCTCACCGGGGGTCTGGAACT  
 ACCACCACGGTGTGGCCAGCTGCACTGAGAGACTAGACCATATGAAGAGCTTGGACAGTCTGCCAAT  
 CTCAGTCTACTGTCCACCCACCTATAGCACCACAGGCTACAGTATGGACCCTGTACAGGCTACCAATA  
 TGGGCAGTATGGACAAAGTGCCTTTTATTCTCAAGCCAGATATCGCG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG219852 representing NM\_181458  
 Red=Cloning site Green=Tags(s)

MTTLGAVPRMMRPGPGQNYPRSGFPLEVSTPLGQGRVNQLGGVFINGRPLPNHIRHKIVEMAHHGIRPC  
 VISRQLRVSHGCVSKILCRYQETGSIIRPGAIGGSKPKVTPDVEKKIEEYKRENPGMFSWEIRDKLLKDA  
 VCDRNTVPSVSSISRILRSKFGKGEEDLERKEAEESEKKAKHSIDGILSERASAPQSDEGSDIDSEP  
 DLPLKRKRQRRTTFTAEQLEELERAFERTHYPDYITREELAQRAKLEARVQVWF SNRRARWRKQAGAN  
 QLMFNLHLPGGFPPTAMPPLPTYQLSETSYQPTIPQAVSDPSSVHRPQPLPPSTVHQTIPSNPDSS  
 SAYCLPSTRHGFSSYTDSFVPPSGPSNPMNPTIGNLSPQVMGLLTNHGGVPHQPQTDYALSPGTGGLEP  
 TTTVSASCSQRLDHMKSLDSLPTSQSYCPPTYSTTGYSMDPVTGYQYQYQSAFHLYKPDIA

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_181458

**ORF Size:** 1449 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\\_181458.1](#), [NP\\_852123.1](#)

**RefSeq Size:** 3341 bp

**RefSeq ORF:** 1455 bp

**Locus ID:** 5077

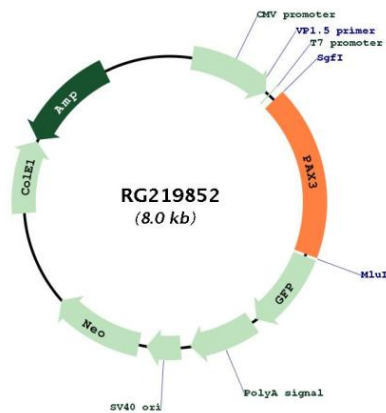
**UniProt ID:** [P23760](#)

**Cytogenetics:** 2q36.1

**Protein Families:** Adult stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Transcription Factors

**Gene Summary:** This gene is a member of the paired box (PAX) family of transcription factors. Members of the PAX family typically contain a paired box domain and a paired-type homeodomain. These genes play critical roles during fetal development. Mutations in paired box gene 3 are associated with Waardenburg syndrome, craniofacial-deafness-hand syndrome, and alveolar rhabdomyosarcoma. The translocation t(2;13)(q35;q14), which represents a fusion between PAX3 and the forkhead gene, is a frequent finding in alveolar rhabdomyosarcoma. Alternative splicing results in transcripts encoding isoforms with different C-termini. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG219852