

## Product datasheet for **SC309287**

### **PAX3 (NM\_181459) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PAX3 (NM_181459) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAX3
Synonyms:	CDHS; HUP2; WS1; WS3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >SC309287 representing NM\_181459.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGACCACGCTGGCCGGCGCTGTGCCAGGATGATGCGGCCGGGCCGGGGCAGAACTACCCGCGTAGC
GGGTTCCCGCTGGAAGTGTCCACTCCCCTCGGCCAGGGCCGCGTCAACCAGCTCGGCGGTGTTTTATC
AACGGCAGGCGCGTGCCAACACATCCGCCACAAGATCGTGGAGATGGCCACCACGGCATCCGGCCC
TGCCTCATCTCGCGCAGCTGCGCGTGTCCACGGCTGCGTCTCCAAGATCCTGTGCAGGTACCAGGAG
ACTGGCTCCATACGTCCTGGTGCCATCGCGGCAGCAAGCCCAAGCAGGTGACAACGCTGACGTGGAG
AAGAAAATTGAGGAATACAAAAGAGAGAACCCGGGCATGTTAGCTGGGAAATCCGAGACAAATTACTC
AAGGACGCGGTCTGTGATCGAAACACCGTGCCGTAGTGAGTTCCATCAGCCGCATCCTGAGAAGTAAA
TTCGGGAAAGGTGAAGAGGAGGAGGCCGACTTGGAGAGGAAGGAGGCAGAGGAAAGCGAGAAGAAGGCC
AAACACAGCATCGACGGCATCCTGAGCGAGCGAGCCTCAGCACCCCAATCAGATGAAGGCTCTGATATT
GACTCTGAACCAGATTTACCACTAAAGAGGAAACAGCGCAGAAGCCGAACCACCTTCACAGCAGAACAG
CTGGAGGAACTGGAGCGTGCTTTTGAGAGAACTATTACCTGACATTTATACTAGGGAGGAACTGGCC
CAGAGGGCGAAGCTACCGAGGCCCGAGTACAGGTCTGGTTTAGCAACCGCCGTCAGATGGAGGAAG
CAAGCTGGGGCCCAATCAACTGATGGCTTTCAACCATCTCATTCCCGGGGGTTCCCTCCCACTGCCATG
CCGACCTTGCCACGTACCAGCTGTGCGAGACCTCTTACCAGCCACATCTATTCCACAAGCTGTGTCA
GATCCCAGCAGCACCGTTACAGACCTCAACCGCTTCTCCAAGCACTGTACACCAAGCAGCAGTTCTT
TCCAACCCAGACAGCAGCTCTGCCTACTGCCTCCCCAGCACCAGGCATGGATTTTCCAGCTATACAGAC
AGCTTTGTGCCTCCGTGCGGGCCCTCAACCCCATGAACCCACCATTGGCAATGGCCTCTCACCTCAG
GTAATGGGACTCCTGACCAACCACGGTGGGTACCTCATCAGCCCAGACTGATTACGCGCTCTCCCT
CTACCCGGGGGTCTGGAACCTACCACACGGTGTGCGCCAGCTGCAGTCAGAGACTAGACCATATGAAG
AGCTTGAGACAGTCTGCCAATCTCAGTCTACTGTCCACCCACCTATAGCACCACAGGCTACAGTATG
GACCCTGTACAGGCTACCAATATGGGCAGTATGGACAAAGTGCCTTTTATTATCTCAAGCCAGATATC
GCTTGTTTCAAATCCTTTGAACACGTTTCGACAAAAGCAGTGGAGAAGAGGAAGACCTGGAGCAATAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_181459  
**Insert Size:** 1518 bp  
**OTI Disclaimer:**

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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_181459.3</a>
<b>RefSeq Size:</b>	3188 bp
<b>RefSeq ORF:</b>	1518 bp
<b>Locus ID:</b>	5077
<b>UniProt ID:</b>	<a href="#">P23760</a>
<b>Cytogenetics:</b>	2q36.1
<b>Protein Families:</b>	Adult stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Transcription Factors
<b>MW:</b>	56 kDa
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (PAX3E) differs in the 3' UTR, and contains an alternate splice pattern in the 3' coding region, compared to variant PAX3. The resulting protein (isoform PAX3e) is longer and has a distinct C-terminus, compared to isoform PAX3. 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.</p>