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# Product datasheet for RC219983

## PAX3 (NM_181461) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | PAX3 (NM_181461) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | PAX3 |
| **Synonyms:** | CDHS; HUP2; WS1; WS3 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |

**ORF Nucleotide Sequence:**

>RC219983 representing NM_181461
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCACGCTGGCCGGCGCTGTGCCCAGGATGATGCGGCCGGGCCCGGGGCAGAACTACCCGCGTAGCG
GGTTCCCGCTGGAAGTGTCCACTCCCCTCGGCCAGGGCCGCGTCAACCAGCTCGGCGGTGTTTTTATCAA
CGGCAGGCCGCTGCCCAACCACATCCGCCACAAGATCGTGGAGATGGCCCACCACGGCATCCGGCCCTGC
GTCATCTCGCGCCAGCTGCGCGTGTCCCACGGCTGCGTCTCCAAGATCCTGTGCAGGTACCAGGAGACTG
GCTCCATACGTCCTGGTGCCATCGGCGGCAGCAAGCCCAAGCAGGTGACAACGCCTGACGTGGAGAAGAA
AATTGAGGAATACAAAAGAGAGAACCCGGGCATGTTCAGCTGGGAAATCCGAGACAAATTACTCAAGGAC
GCGGTCTGTGATCGAAACACCGTGCCGTCAGTGAGTTCCATCAGCCGCATCCTGAGAAGTAAATTCGGGA
AAGGTGAAGAGGAGGAGGCCGACTTGGAGAGGAAGGAGGCAGAGGAAAGCGAGAAGAAGGCCAAACACAG
CATCGACGGCATCCTGAGCGAGCGAGCCTCAGCACCCCAATCAGATGAAGGCTCTGATATTGACTCTGAA
CCAGATTTACCACTAAAGAGGAAACAGCGCAGAAGCCGAACCACCTTCACAGCAGAACAGCTGGAGGAAC
TGGAGCGTGCTTTTGAGAGAACTCATTACCCTGACATTTATACTAGGGAGGAACTGGCCCAGAGGGCGAA
GCTCACCGAGGCCCGAGTACAGGTCTGGTTTAGCAACCGCCGTGCAAGATGGAGGAAGCAAGCTGGGGCC
AATCAACTGATGGCTTTCAACCATCTCATTCCCGGGGGGTTCCCTCCCACTGCCATGCCGACCTTGCCAA
CGTACCAGCTGTCGGAGACCTCTTACCAGCCCACATCTATTCCACAAGCTGTGTCAGATCCCAGCAGCAC
CGTTCACAGACCTCAACCGCTTCCTCCAAGCACTGTACACCAAAGCACGATTCCTTCCAACCCAGACAGC
AGCTCTGCCTACTGCCTCCCCAGCACCAGGCATGGATTTTCCAGCTATACAGACAGCTTTGTGCCTCCGT
CGGGGCCCTCCAACCCCATGAACCCCACCATTGGCAATGGCCTCTCACCTCAGGTGCCTTTCATTATCTC
AAGCCAGATATCGCGTAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:**

>RC219983 representing NM_181461
Red=Cloning site Green=Tags(s)

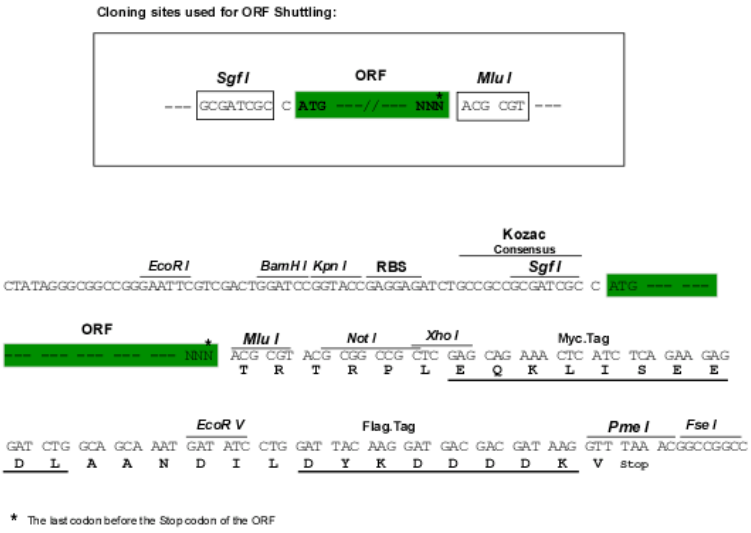
MTTLAGAVPRMMRPGPGQNYPRSGFPLEVSTPLGQGRVNQLGGVFINGRPLPNHIRHKIVEMAHHGIRPC
VISRQLRVSHGCVSKILCRYQETGSIRPGAIGGSKPKQVTTPDVEKKIEEYKRENPGMFSWEIRDKLLKD
AVCDRNTVPSVSSISRILRSKFGKGEEEEADLERKEAEESEKKAKHSIDGILSERASAPQSDEGSDIDSE
PDLPLKRKQRRSRTTFTAEQLEELERAFERTHYPDIYTREELAQRAKLTEARVQVWFSNRRARWRKQAGA
NQLMAFNHLIPGGFPPTAMPTLPTYQLSETSYQPTSIPQAVSDPSSTVHRPQPLPPSTVHQSTIPSNPDS
SSAYCLPSTRHGFSSYTDSFVPPSGPSNPMNPTIGNGLSPQVPFIISSQISRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mk8057_e12.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_181461

**ORF Size:** 1209 bp

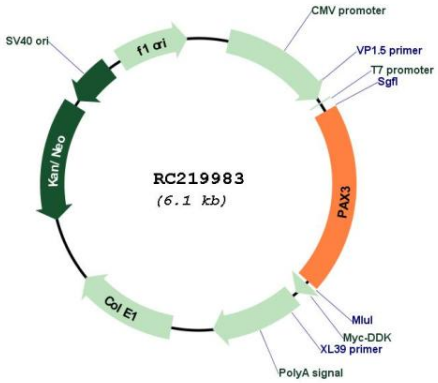
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

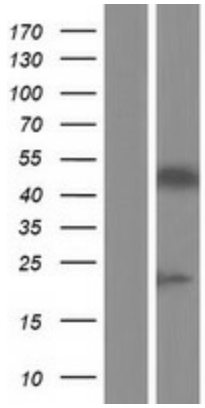
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

| | |
|---|---|
| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_181461.4 |
| **RefSeq Size:** | 1650 bp |
| **RefSeq ORF:** | 1212 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 |
| **MW:** | 44.6 kDa |
| **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 RC219983




Western blot validation of overexpression lysate (Cat# [LY405770]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219983 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).