

Product datasheet for **RC219852**

PAX3 (NM_181458) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAX3 (NM_181458) 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)



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ORF Nucleotide Sequence:

>RC219852 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACCACGCTGGCCGGCGCTGTGCCAGGATGATGCGGCCGGGCCGGGCCGAGAATACCCGCGTAGCG
 GGTTCCCCTGGAAGTGTCCACTCCCCTCGGCCAGGGCCGCGTCAACCAGCTCGGCGGTGTTTTATCAA
 CGGCAGGCCGCTGCCAACCACATCCGCCACAAGATCGTGGAGATGGCCACCACGGCATCCGGCCCTGC
 GTCATCTCGCGCCAGCTGCGCGTGTCCACGGCTGCGTCTCCAAGATCCTGTGCAGGTACCAGGAGACTG
 GCTCCATACGTCCTGGTCCATCGGCGGCAGCAAGCCCAAGGTGACAACGCCTGACGTGGAGAAGAAAAT
 TGAGGAATACAAAAGAGAGAACCCGGGCATGTTCACTGAGTAAATCCGAGACAAATTAAGGACGCG
 GTCTGTGATCGAAACACCGTCCCGTCACTGAGTCCATCAGCCGCATCCTGAGAAGTAAATTCGGGAAAG
 GTGAAGAGGAGGAGGCCACTTGGAGAGGAAGGAGGCAGAGGAAAGCGAGAAGAAGGCCAAACACAGCAT
 CGACGGCATCCTGAGCGAGCGAGCCTCAGCACCCCAATCAGATGAAGGCTCTGATATTGACTCTGAACCA
 GATTTACCACTAAAGAGGAAACAGCGCAGAAGCCGAACACCTTCACAGCAGAACAGCTGGAGGAACTGG
 AGCGTGCTTTTGAGAGAACTCATTACCCTGACATTTATACTAGGGAGGAACTGGCCAGAGGGCGAAGCT
 CACCGAGGCCCGAGTACAGGTCTGGTTTAGCAACCGCCGTGCAAGATGGAGGAAGCAAGCTGGGGCAAT
 CAACTGATGGCTTTCAACCATCTCATTCCCGGGGGTTCCTCCCACTGCCATGCCGACCTTGCCAACTG
 ACCAGCTGTGGAGACCTTACCAGCCACATCTATCCACAAGCTGTGTGAGTCCCAGCAGCACCGT
 TCACAGACCTCAACCGTTCCTCAAGCACTGTACACCAAGCAGGATTCCTTCAACCCAGACAGCAGC
 TCTGCCTACTGCCTCCCAAGCAGGATGGATTTCCAGCTATACAGACAGCTTTGTGCTCCGTCGG
 GGCCCTCAACCCATGAACCCACCATTTGGCAATGGCCTCTCACCTCAGGTAATGGGACTCTGACCAA
 CCACGGTGGGGTACCTCATCAGCCCAAGACTGATTACGCGCTCTCCCTCTCACCGGGGGTCTGGAACCA
 ACCACCACGGTGTGCGCCAGCTGCACTGAGACTAGACCATATGAAGAGCTTGGACAGTCTGCCAACAT
 CTCAGTCTACTGTCCACCCACCTATAGCACCACAGGCTACAGTATGGACCCTGTACAGGCTACCAATA
 TGGGCAGTATGGACAAAGTGCCTTTTATTCTCAAGCCAGATATCGCG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219852 protein sequence
 Red=Cloning site Green=Tags(s)

MTTLGAVPRMMPGPGQNYPRSGFPLEVSTPLGQGRVNQLGGVFINRPLPNHIRHKIVEMAHHGIRPC
 VISRQLRVSHGCVSKILCRYQETGSIRPGAIGGSKPKVTPDVEKKIEEYKRENPGMFSWEIRDKLLKDA
 VCDRNTVPSVSSISRILRSKFGKGEEDLERKEAEESEKKAKHSIDGILSERASAPQSDEGSDIDSEP
 DLPLKQRKRRSRTTFTAEQLEELERAFERTHYPDITYREELAQRACLTEARVQVWF SNRRARWRKQAGAN
 QLMFANHLIPGGFPPTAMPPLPTYQLSETSYQPTSIPQAVSDPSSTVHRPQPLPPSTVHQSTIPSNPDS
 SAYCLPSTRHGFSSYTDSFVPPSGSPNPMNPTIGNLSPQVMGLLTNHGGVPHQPQTDYALSPLTGGLEP
 TTTVSASCSQRLDHMKSLSLPTSQSYCPPTYSTTGYSMDPVTGYQYQYQSAFHLYKPDIA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

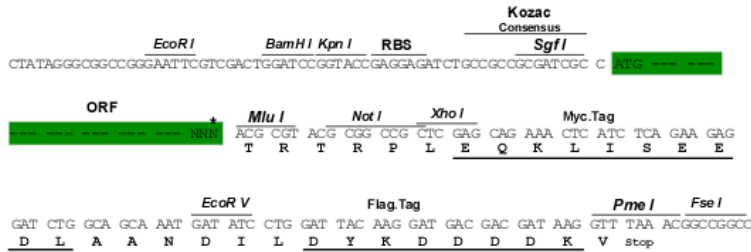
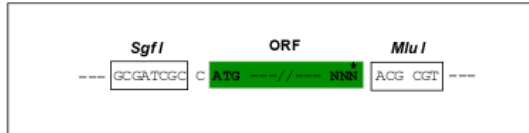
https://cdn.origene.com/chromatograms/mk6559_h01.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

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_181458.4](#)

RefSeq Size: 3359 bp

RefSeq ORF: 1455 bp

Locus ID: 5077

UniProt ID: [P23760](#)

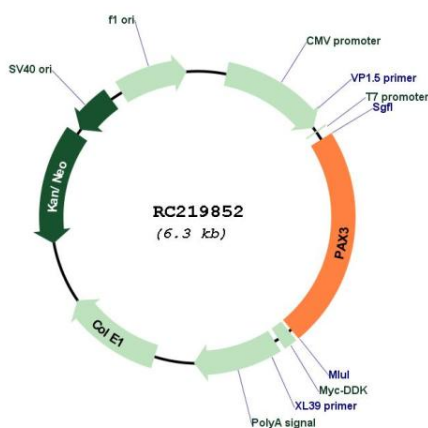
Cytogenetics: 2q36.1

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

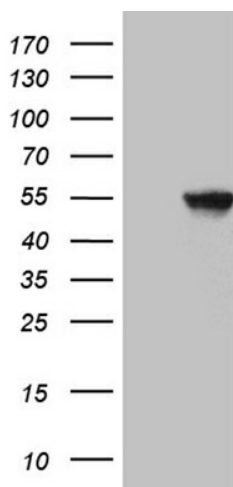
MW: 53.3 kDa

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]

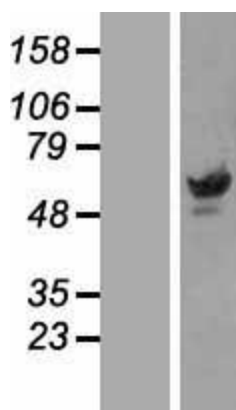
Product images:



Circular map for RC219852



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PAX3 (Cat# RC219852, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PAX3 (Cat# [TA809630])(1:2000). Positive lysates [LY405767] (100ug) and [LC405767] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY405767]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219852 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).