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Product datasheet for SC330686

PAX6 (NM_001258462) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: PAX6 (NM_001258462) Human Untagged Clone

Tag: Tag Free

Symbol: PAX6

Synonyms: AN; AN1; AN2; ASGD5; D11S812E; FVH1; MGDA; WAGR

Vector: pCMV6-Entry (PS100001)

Fully Sequenced ORF:

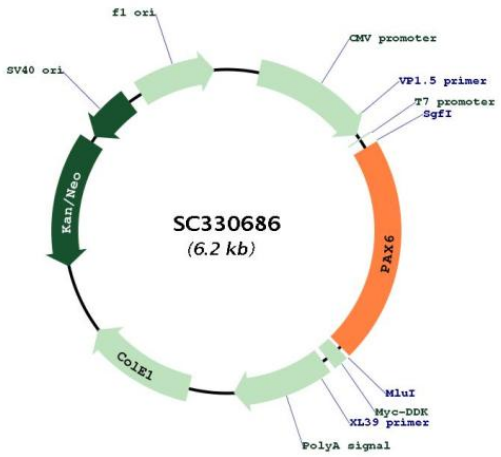
>SC330686 representing NM_001258462.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGCAGAACAGTCACAGCGGAGTGAATCAGCTCGGTGGTGTCTTTGTCAACGGGCGGCCACTGCCGGAC
TCCACCCGGCAGAAGATTGTAGAGCTAGCTCACAGCGGGGCCCGGCCGTGCGACATTTCCCGAATTCTG
CAGACCCATGCAGATGCAAAAGTCCAAGTGCTGGACAATCAAAACGTGTCCAACGGATGTGTGAGTAAA
ATTCTGGGCAGGTATTACGAGACTGGCTCCATCAGACCCAGGGCAATCGGTGGTAGTAAACCGAGAGTA
GCGACTCCAGAAGTTGTAAGCAAAATAGCCCAGTATAAGCGGGAGTGCCCGTCCATCTTTGCTTGGGAA
ATCCGAGACAGATTACTGTCCGAGGGGGTCTGTACCAACGATAACATACCAAGCGTGTCATCAATAAAC
AGAGTTCTTCGCAACCTGGCTAGCGAAAAGCAACAGATGGGCGCAGACGGCATGTATGATAAACTAAGG
ATGTTGAACGGGCAGACCGGAAGCTGGGGCACCCGCCCTGGTTGGTATCCGGGGACTTCGGTGCCAGGG
CAACCTACGCAAGATGGCTGCCAGCAACAGGAAGGAGGGGGAGAGAATACCAACTCCATCAGTTCCAAC
GGAGAAGATTCAGATGAGGCTCAAATGCGACTTCAGCTGAAGCGGAAGCTGCAAAGAAATAGAACATCC
TTTACCCAAGAGCAAATTGAGGCCCTGGAGAAAGAGTTTGAGAGAACCCATTATCCAGATGTGTTTGCC
CGAGAAAGACTAGCAGCCAAAATAGATCTACCTGAAGCAAGAATACAGGTATGGTTTTCTAATCGAAGG
GCCAAATGGAGAAGAGAAGAAAAACTGAGGAATCAGAGAAGACAGGCCAGCAACACACCTAGTCATATT
CCTATCAGCAGTAGTTTCAGCACCAGTGTCTACCAACCAATTCCACAACCCACCACACCGGTTTCCTCC
TTCACATCTGGCTCCATGTTGGGCCGAACAGACACAGCCCTCACAAACACCTACAGCGCTCTGCCGCCT
ATGCCCAGCTTCACCATGGCAAATAACCTGCCTATGCAACCCCCAGTCCCCAGCCAGACCTCCTCATAC
TCCTGCATGCTGCCCACCAGCCCTTCGGTGAATGGGCGGAGTTATGATACCTACACCCCCCCACATATG
CAGACACACATGAACAGTCAGCCAATGGGCACCTCGGGCACCACTTCAACAGGACTCATTTCCCCTGGT
GTGTCAGTTCCAGTTCAAGTTCCCGGAAGTGAACCTGATATGTCTCAATACTGGCCAAGATTACAGTAA

Restriction Sites: SgfI-MluI

View online »

Plasmid Map:



ACCN:	NM_001258462
Insert Size:	1311 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_001258462.1
RefSeq Size:	6925 bp
RefSeq ORF:	1311 bp
Locus ID:	5080

Cytogenetics:	11p13
Protein Families:	Adult stem cells, Druggable Genome, Embryonic stem cells, Transcription Factors
Protein Pathways:	Maturity onset diabetes of the young
MW:	48.2 kDa
Gene Summary:	This gene encodes paired box protein Pax-6, one of many human homologs of the Drosophila melanogaster gene prd. In addition to a conserved paired box domain, a hallmark feature of this gene family, the encoded protein also contains a homeobox domain. Both domains are known to bind DNA and function as regulators of gene transcription. Activity of this protein is key in the development of neural tissues, particularly the eye. This gene is regulated by multiple enhancers located up to hundreds of kilobases distant from this locus. Mutations in this gene or in the enhancer regions can cause ocular disorders such as aniridia and Peter's anomaly. Use of alternate promoters and alternative splicing results in multiple transcript variants encoding different isoforms. Interestingly, inclusion of a particular alternate coding exon has been shown to increase the length of the paired box domain and alter its DNA binding specificity. Consequently, isoforms that carry the shorter paired box domain regulate a different set of genes compared to the isoforms carrying the longer paired box domain. [provided by RefSeq, Mar 2019] Transcript Variant: This variant (4) differs in the 5' UTR and includes an alternate in-frame exon in the 5' coding region, compared to variant 1. It initiates from the A (P0) promoter. The encoded isoform (b, also known as 5a) is longer than isoform a. Variants 2, 4, 5, 8, and 17-19 all encode the same isoform (b). 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.