GORİGene
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## Product datasheet for RC225676L4

## PAX6 (NM_001127612) Human Tagged Lenti ORF Clone

## Product data:

Product Type: Expression Plasmids
Product Name: PAX6 (NM_001127612) Human Tagged Lenti ORF Clone

Tag:
Symbol:
Synonyms:
Mammalian Cell
Selection:
Vector:
E. coli Selection:

ORF Nucleotide
Sequence:
Restriction Sites:
Cloning Scheme:

OriGene Technologies, Inc.
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mGFP
PAX6
AN; AN1; AN2; ASGD5; D11S812E; FVH1; MGDA; WAGR
Puromycin
pLenti-C-mGFP-P2A-Puro (PS100093)
Chloramphenicol ( $34 \mathrm{ug} / \mathrm{mL}$ )
The ORF insert of this clone is exactly the same as(RC225676).

## Sgfl-Mlul

Cloning sites used for ORF Shuttling:


----- GGA CTC AGA GTT TGG GTA GGA AGC

* The last codon before the Stop codon of the ORF.


## Plasmid Map:

## ACCN:

ORF Size:
OTI Disclaimer:

OTI Annotation:

Components:

Reconstitution Method:

NM_001127612
1266 bp
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
2. Carefully open the tube and add 100 ul 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 5000 xg ) to concentrate the liquid
at the bottom.
5. Store the suspended plasmid at $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of
shipping when stored at $-20^{\circ} \mathrm{C}$.
RefSeq:
RefSeq Size:
NM 001127612.1
RefSeq ORF:

| Locus ID: | 5080 |
| :--- | :--- |
| UniProt ID: | $\underline{\text { P26367 }}$ |
| Cytogenetics: | $11 p 13$ |
| Protein Families: | Adult stem cells, Druggable Genome, Embryonic stem cells, Transcription Factors |
| Protein Pathways: | Maturity onset diabetes of the young |
| MW: | 46.7 kDa |
| Gene Summary: | This gene encodes paired box protein Pax-6, one of many human homologs of the Drosophila <br> melanogaster gene prd. In addition to a conserved paired box domain, a hallmark feature of <br> 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 <br> key in the development of neural tissues, particularly the eye. This gene is regulated by <br> multiple enhancers located up to hundreds of kilobases distant from this locus. Mutations in <br> this gene or in the enhancer regions can cause ocular disorders such as aniridia and Peter's <br> anomaly. Use of alternate promoters and alternative splicing results in multiple transcript <br> variants encoding different isoforms. Interestingly, inclusion of a particular alternate coding <br> exon has been shown to increase the length of the paired box domain and alter its DNA <br> binding specificity. Consequently, isoforms that carry the shorter paired box domain regulate <br> a different set of genes compared to the isoforms carrying the longer paired box domain. <br> [provided by RefSeq, Mar 2019] |

