

Product datasheet for **RR217744**

Rp1 (NM_001195676) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rp1 (NM_001195676) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Rp1
Synonyms: RGD1560182; Rp1h
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR217744 representing NM_001195676
Red=Cloning site Blue=ORF Green=Tags(s)

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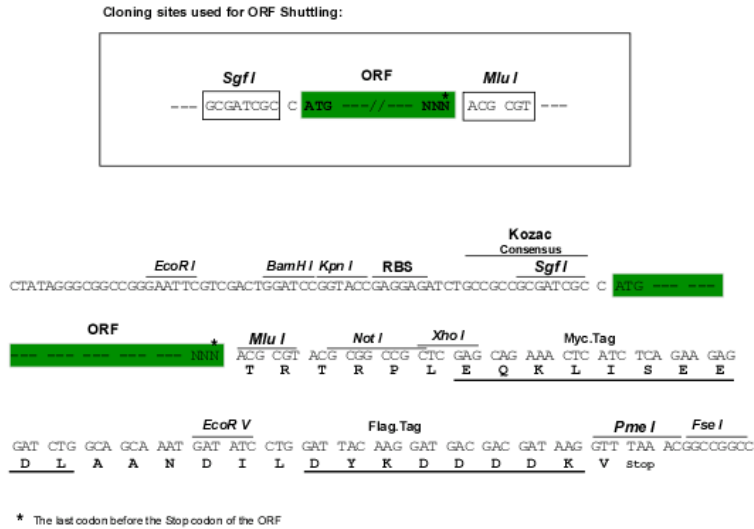
Protein Sequence: >RR217744 representing NM_001195676
 Red=Cloning site Green=Tags(s)

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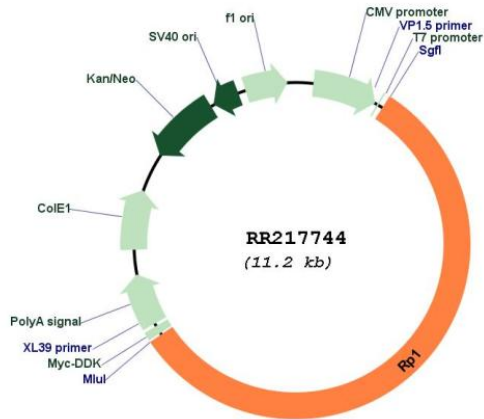
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Restriction Sites: Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN: NM_001195676

ORF Size: 6375 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_001195676.1](#), [NP_001182605.1](#)

RefSeq Size: 6991 bp

RefSeq ORF: 6378 bp

Locus ID: 681377

Cytogenetics: 5q12

MW: 237.9 kDa

Gene Summary: This gene encodes a member of the doublecortin family. The protein encoded by this gene contains two doublecortin domains, which bind microtubules and regulate microtubule polymerization. The encoded protein is a photoreceptor microtubule-associated protein and is required for correct stacking of outer segment disc. This protein and the RP1L1 protein, another retinal-specific protein, play essential and synergistic roles in affecting photosensitivity and outer segment morphogenesis of rod photoreceptors. Because of its response to in vivo retinal oxygen levels, this protein was initially named ORP1 (oxygen-regulated protein-1). This protein was subsequently designated RP1 (retinitis pigmentosa 1) when it was found that mutations in this gene cause autosomal dominant retinitis pigmentosa. Mutations in this gene also cause autosomal recessive retinitis pigmentosa. [provided by RefSeq, Sep 2010]