

## Product datasheet for RC220376L1

#### OriGene Technologies, Inc.

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## PKA R2 (PRKAR2A) (NM\_004157) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: PKA R2 (PRKAR2A) (NM 004157) Human Tagged Lenti ORF Clone

Tag: Myc-DDK
Symbol: PKA R2

Synonyms: PKR2; PRKAR2

Mammalian Cell None

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

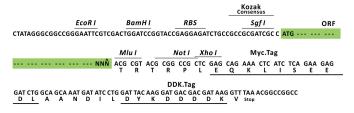
ORF Nucleotide The ORF insert of this clone is exactly the same as(RC220376).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_004157

ORF Size: 1212 bp



### PKA R2 (PRKAR2A) (NM\_004157) Human Tagged Lenti ORF Clone - RC220376L1

**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:** <u>NM 004157.2</u>

RefSeq Size: 2381 bp
RefSeq ORF: 1215 bp
Locus ID: 5576

 UniProt ID:
 P13861

 Cytogenetics:
 3p21.31

**Domains:** cNMP, RIIa

**Protein Families:** Druggable Genome

**Protein Pathways:** Apoptosis, Insulin signaling pathway

MW: 45.3 kDa

**Gene Summary:** cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its

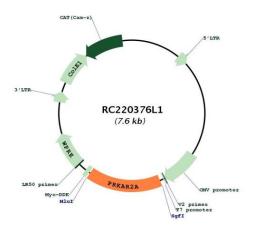
effects by activating the cAMP-dependent protein kinase, which transduces the signal through phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of two regulatory and two catalytic subunits. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. The protein encoded by this gene is one of the regulatory subunits. This subunit can be phosphorylated by the activated catalytic subunit. It may interact with various A-kinase anchoring proteins and determine the subcellular localization of cAMP-dependent protein kinase. This subunit has been shown to regulate protein

transport from endosomes to the Golgi apparatus and further to the endoplasmic reticulum

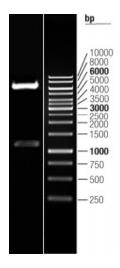
(ER). [provided by RefSeq, Jul 2008]



# **Product images:**



Circular map for RC220376L1



Double digestion of RC220376L1 using Sgfl and Mlul  $\,$