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Product datasheet for RG220376

PKA R2 (PRKAR2A) (NM_004157) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKA R2 (PRKAR2A) (NM_004157) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PKA R2
Synonyms:	PKR2; PRKAR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG220376 representing NM_004157
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCCACATCCAGATCCCGCCGGGGCTCACGGAGCTGCTGCAGGGCTACACGGTGGAGGTGCTGCGAC
AGCAGCCGCCTGACCTCGTCGAATTCGCAGTGGAGTACTTCACCCGCCTGCGCGAGGCCCGCGCCCCAGC
CTCAGTCCTGCCCGCCGCCACCCCACGCCAGAGCCTGGGCCACCCCCCGCCAGAACCCGGCCCGGACCGT
GTCGCCGACGCCAAAGGGGACAGCGAGTCGGAGGAGGACGAGGACTTGGAAGTTCCAGTTCCTAGCAGAT
TTAATAGACGAGTATCAGTCTGTGCTGAGACCTATAACCCTGATGAGGAAGAGGAAGATACAGATCCAAG
GGTGATTCATCCTAAAACTGATGAACAGAGATGCAGACTTCAGGAAGCTTGCAAAGATATTCTCCTTTTC
AAAAATCTTGATCAGGAACAGCTTTCTCAAGTTCTCGATGCCATGTTTGAAAGGATAGTCAAAGCTGATG
AGCATGTCATTGACCAAGGAGATGATGGAGACAACTTTTATGTCATAGAACGGGGAACTTATGACATTTT
AGTAACAAAAGATAATCAAACCCGCTCTGTTGGTCAATATGACAACCGTGGCAGTTTTGGAGAACTAGCT
CTGATGTACAACACCCCGAGAGCTGCTACCATTGTTGCTACCTCAGAAGGCTCCCTTTGGGGACTGGACC
GGGTGACTTTTAGAAGAATCATAGTGAAAAATAATGCAAAGAAGAGGAAGATGTTTGAATCATTTATTGA
GTCTGTGCCCCTCCTTAAATCACTAGAGGTGTCAGAACGAATGAAGATTGTGGATGTAATAGGAGAGAAG
ATCTATAAGGATGGAGAACGCATAATCACTCAGGGTGAAAAGGCTGATAGCTTTTACATCATAGAGTCTG
GCGAAGTGAGCATCTTGATTAGAAGCAGGACTAAATCAAACAAGGATGGTGGGAACCAGGAGGTCGAGAT
TGCCCGCTGCCATAAGGGGCAGTACTTTGGAGAGCTTGCCCTGGTCACCAACAAACCCAGAGCTGCCTCA
GCTTATGCAGTTGGAGATGTCAAATGCTTAGTTATGGATGTACAAGCATTCGAGAGGCTTCTGGGGCCCT
GCATGGACATCATGAAGAGGAACATCTCACACTATGAGGAACAGCTGGTGAAGATGTTTGGCTCCAGCGT
GGATCTGGGCAACCTCGGGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

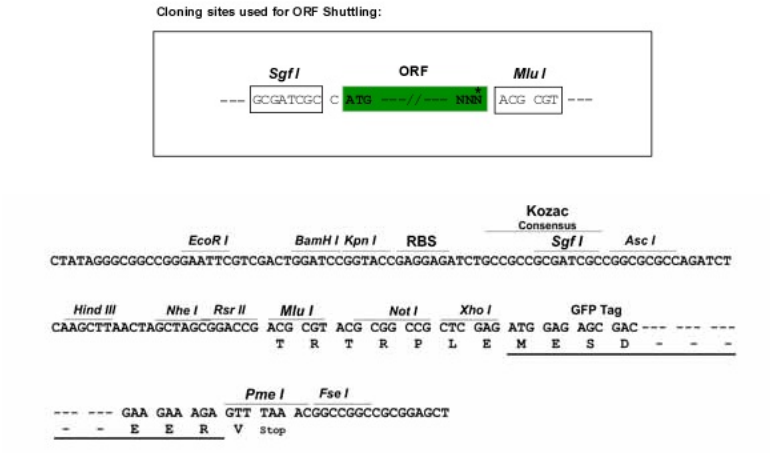
>RG220376 representing NM_004157
Red=Cloning site Green=Tags(s)

MSHIQIPPGLTELLQGYTVEVLRQQPPDLVEFAVEYFTRLREARAPASVLPAATPRQSLGHPPPEPGPDR
VADAKGDSESEEDEDLEVPVPSRFNRRVSVCAETYNPDEEEEDTDPRVIHPKTDEQRCRLQEACKDILLF
KNLDQEQLSQVLDAMFERIVKADEHVIDQGDDGDNFYVIERGTYDILVTKDNQTRSVGQYDNRGSFGELA
LMYNTPRAATIVATSEGSLWGLDRVTFRRIIVKNNAKKRKMFESFIESVPLLKSLEVSERMKIVDVIGEK
IYKDGERIITQGEKADSFYIIESGEVSILIRSRTKSNKDGGNQEVEIARCHKGQYFGELALVTNKPRAAS
AYAVGDVKCLVMDVQAFERLLGPCMDIMKRNISHYEEQLVKMFGSSVDLGNLGQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004157

ORF Size: 1212 bp

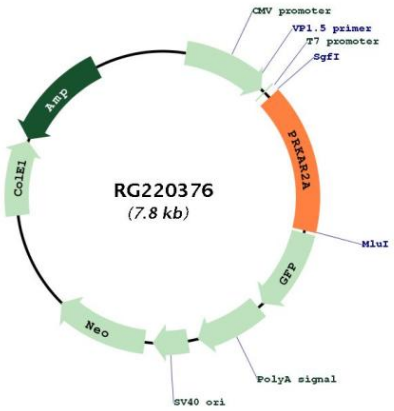
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_004157.4
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
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 RG220376