OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC239441

CGK2 (PRKG2) (NM_001282485) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CGK2 (PRKG2) (NM_001282485) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PRKG2
Synonyms:	cGK2; cGKII; PKG2; PRKGR2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

View online »

ORF Nucleotide Sequence:

>RC239441 representing NM_001282485
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGAAATGGTTCAGTGAAACCTAAACATTCTAAGCACCCAGATGGACACTCTGGGAACCTCACCACTG
ATGCTCTGCGGAACAAGGTGACAGAGCTGGAGAGAGAGTTGAGGAGGAAGGATGCTGAGATCCAGGAGCG
GGAGTACCATTTGAAGGAGCTGCGGGAGCAGCTGTCGAAGCAGACTGTGGCCATTGCTGAACTCACAGAG
GAGCTCCAGAACAAGTGCATCCAGCTGAACAAGCTGCAGGATGTGGTGCATATGCAGGGAGGAAGCCCGC
TTCAGGCCTCTCCAGATAAAGTGCCTCTTGAGGTCCACCGGAAGACCTCTGGATTGGTCTCTCTCCATAG
CAGGAGGGGAGCAAAGGCTGGCGTGTCTGCTGAGCCAACAACCCGGACCTATGACCTGAACAAACCCCCT
GAATTTTCCTTTGAGAAAGCAAGAGTCAGAAAAGACTCCAGTGAGAAGAAGCTCATTACAGATGCCCTTA
ATAAAAATCAGTTTCTGAAAAGACTGGATCCTCAGCAGATCAAAGACATGGTGGAATGCATGTATGGGAG
AAACTATCAGCAAGGGAGTTACATTATTAAGCAAGGAGAACCAGGAAACCATATCTTTGTGCTGGCAGAG
GGTCGACTAGAGGTGTTCCAAGGGGAGAAATTGCTGTCCTCCATCCCTATGTGGACCACATTTGGGGAGC
TTGCCATTTTATACAATTGTACAAGGACTGCCTCTGTGAAAGCTATTACCAATGTTAAAACATGGGCACT
AGATCGAGAGGTATTCCAGAATATAATGAGGAGGACAGCCCAAGCTAGAGATGAACAATACAGAAACTTC
CTCAGAAGTGTATCCTTGCTGAAGAATTTACCTGAAGATAAATTAACCAAGATCATTGACTGCTTGGAAG
TGGAATACTATGACAAAGGAGATTACATCATTAGAGAGGGCGAGGAAGGAAGTACCTTTTTCATTTTGGC
AAAAGGAAAGGTAAAAGTAACACAGAGCACAGAAGGCCATGATCAACCACAGCTGATAAAAACACTGCAG
AAAGGAGAATACTTTGGAGAAAAAGCTCTTATCAGTGATGATGTCAGGTCAGCTAACATTATTGCTGAAG
AAAATGATGTTGCATGCCTGGTTATAGATCGAGAAACATTCAACCAAACTGTCGGTACATTTGAAGAGCT
GCAAAAATACCTTGAAGGATATGTGGCAAACCTGAACCGTGATGATGAAAAAAGACATGCGAAGCGGTCC
ATGTCTAACTGGAAGCTGTCCAAAGCACTCTCTCTGGAAATGATTCAGCTGAAGGAGAAGGTTAAAGTAA
AAAATGAGAATGTTGCTTTTGCTATGAAGTGTATAAGGAAGAAGCACATAGTTGACACCAAGCAGCAGGA
GCATGTCTACTCAGAGAAGAGGATCCTAGAGGAGCTGTGCTCTCCATTCATTGTGAAATTATATCGTACT
TTCAAGGACAATAAGTATGTATACATGCTTCTGGAGGCCTGCTTAGGTGGGGAGCTCTGGAGTATATTAA
GGGACAGAGGCAGCTTTGATGAACCCACCTCCAAATTCTGCGTTGCTTGTGTGACAGAAGCATTTGATTA
CCTGCATCGACTAGGTATTATCTACAGAGACTTGAAACCAGAAAACTTAATTCTAGATGCTGAGGGTTAC
CTTAAATTGGTTGACTTTGGATTTGCGAAGAAAATAGGGTCTGGACAGAAAACATGGACATTCTGTGGGA
CTCCAGAATATGTAGCTCCTGAAGTCATTCTCAACAAGGGACATGACTTCAGTGTGGATTTCTGGTCACT
GGGAATTCTAGTGTATGAGCTCCTAACGGGCAACCCACCCTTTTCTGGGGTTGACCAAATGATGACCTAC
AATTTGATTCTCAAAGGAATTGAAAAAATGGATTTTCCCAGGAAGATAACACGACGACCTGAGGATTTGA
TTCGGAGGCTTTGCAGGCAAAATCCAACAGAAAGGCTGGGAAATCTGAAGAATGGAATAAATGACATTAA
GAAACACAGGTGGTTAAATGGTTTTAATTGGGAGGGACTGAAAGCACGGAGCCTTCCATCACCTTTGCAA
AGAGAGCTCAAGGGACCCATAGATCACAGCTACTTTGACAAATATCCTCCTGAAAAGGGAATGCCTCCAG
ATGAGCTATCAGGCTGGGATAAAGACTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

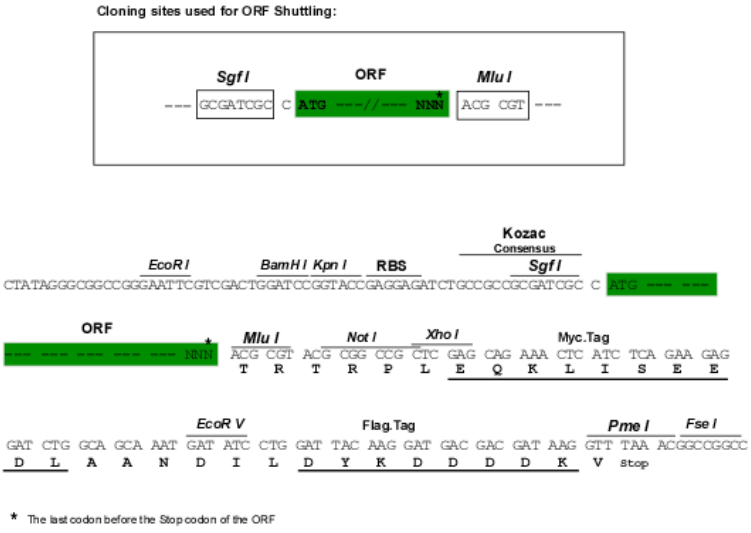
>RC239441 representing NM_001282485
Red=Cloning site Green=Tags(s)

MGNGSVKPKHSKHPDGHSGNLTTDALRNKVTELERELRRKDAEIQEREYHLKELREQLSKQTVAIAELTE
ELQNKCIQLNKLQDVVHMQGGSPLQASPDKVPLEVHRKTSGLVSLHSRRGAKAGVSAEPTTRTYDLNKPP
EFSFEKARVRKDSSEKKLITDALNKNQFLKRLDPQQIKDMVECMYGRNYQQGSYIIKQGEPGNHIFVLAE
GRLEVFQGEKLLSSIPMWTTFGELAILYNCTRTASVKAITNVKTWALDREVFQNIMRRTAQARDEQYRNF
LRSVSLLKNLPEDKLTKIIDCLEVEYYDKGDYIIREGEEGSTFFILAKGKVKVTQSTEGHDQPQLIKTLQ
KGEYFGEKALISDDVRSANIIAEENDVACLVIDRETFNQTVGTFEELQKYLEGYVANLNRDDEKRHAKRS
MSNWKLSKALSLEMIQLKEKVKVKNENVAFAMKCIRKKHIVDTKQQEHVYSEKRILEELCSPFIVKLYRT
FKDNKYVYMLLEACLGGELWSILRDRGSFDEPTSKFCVACVTEAFDYLHRLGIIYRDLKPENLILDAEGY
LKLVDFGFAKKIGSGQKTWTFCGTPEYVAPEVILNKGHDFSVDFWSLGILVYELLTGNPPFSGVDQMMTY
NLILKGIEKMDFPRKITRRPEDLIRRLCRQNPTERLGNLKNGINDIKKHRWLNGFNWEGLKARSLPSPLQ
RELKGPIDHSYFDKYPPEKGMPPDELSGWDKDF

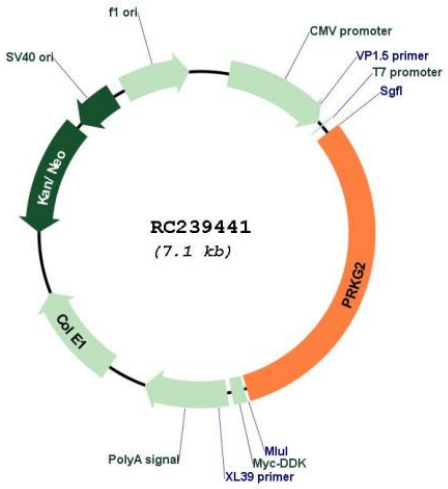
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001282485
ORF Size:	2199 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_001282485.2
RefSeq Size:	4735 bp
RefSeq ORF:	2202 bp
Locus ID:	5593

UniProt ID:	Q13237
Cytogenetics:	4q21.21
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Gap junction, Long-term depression, Olfactory transduction
MW:	84.8 kDa
Gene Summary:	This gene encodes a protein that belongs to the serine/threonine protein kinase family of proteins. The encoded protein binds to and inhibits the activation of several receptor tyrosine kinases. The membrane-bound protein is a regulator of intestinal secretion, bone growth and renin secretion. Alternate splicing results in multiple transcript variants encoding distinct isoforms whose regulatory N-termini differ in length but whose C-terminal catalytic domains are identical. [provided by RefSeq, May 2018]