

## Product datasheet for RC220986L4V

## 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

## cGKI (PRKG1) (NM\_006258) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

**Product Type:** Lentiviral Particles

**Product Name:** cGKI (PRKG1) (NM\_006258) Human Tagged ORF Clone Lentiviral Particle

Symbol: cGKI

Synonyms: AAT8; cGK; cGK1; cGK1; cGKI-alpha; cGKI-BETA; PKG; PKG1; PRKG1B; PRKGR1B

Mammalian Cell

Selection:

Puromycin

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

Tag: mGFP

**ACCN:** NM\_006258 **ORF Size:** 2058 bp

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC220986).

Sequence:

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.

**RefSeg:** NM 006258.1

 RefSeq Size:
 3740 bp

 RefSeq ORF:
 2061 bp

 Locus ID:
 5592

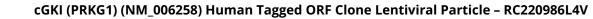
UniProt ID: Q13976

**Cytogenetics:** 10q11.23-q21.1

**Domains:** cNMP, pkinase, S\_TK\_X, TyrKc, S\_TKc

**Protein Families:** Druggable Genome, Protein Kinase





ORIGENE

**Protein Pathways:** Gap junction, Long-term depression, Olfactory transduction, Vascular smooth muscle

contraction

**MW:** 77.6 kDa

Gene Summary: Mammals have three different isoforms of cyclic GMP-dependent protein kinase (lalpha,

lbeta, and II). These PRKG isoforms act as key mediators of the nitric oxide/cGMP signaling pathway and are important components of many signal transduction processes in diverse cell types. This PRKG1 gene on human chromosome 10 encodes the soluble lalpha and Ibeta isoforms of PRKG by alternative transcript splicing. A separate gene on human chromosome 4, PRKG2, encodes the membrane-bound PRKG isoform II. The PRKG1 proteins play a central role in regulating cardiovascular and neuronal functions in addition to relaxing smooth muscle tone, preventing platelet aggregation, and modulating cell growth. This gene is most strongly expressed in all types of smooth muscle, platelets, cerebellar Purkinje cells, hippocampal neurons, and the lateral amygdala. Isoforms lalpha and Ibeta have identical cGMP-binding and catalytic domains but differ in their leucine/isoleucine zipper and autoinhibitory sequences and therefore differ in their dimerization substrates and kinase enzyme activity. [provided by RefSeq, Sep 2011]