

## Product datasheet for **SC215613**

### **cGKI (PRKG1) (NM\_001098512) Human 3' UTR Clone**

#### **Product data:**

Product Type:	3' UTR Clones
Product Name:	cGKI (PRKG1) (NM_001098512) Human 3' UTR Clone
Symbol:	cGKI
Synonyms:	AAT8; cGK; cGK 1; cGK1; cGKI; cGKI-alpha; cGKI-BETA; PKG; PKG1; PRKG1B; PRKGR1B
Mammalian Cell Selection:	Neomycin
Vector:	pMirTarget (PS100062)
ACCN:	NM_001098512
Insert Size:	2000 bp



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**Insert Sequence:** >SC215613 3'UTR clone of NM\_001098512  
 The sequence shown below is from the reference sequence of NM\_001098512. The complete sequence of this clone may contain minor differences, such as SNPs.  
 Blue=Stop Codon Red=Cloning site

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GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAAGCCAAGAAGGGCGGAAAGATCGCCGTG
TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC
GACAACTCAGGATGGGATATAGACTTCTAATGTATTTCTTACCTGCTTCTGCCTTGCTGAAGACAGC
TTTTTCTGAGACACAGCTGCCAGCAAACCTGAGGGAAAGAGAGAAGATTAGTGCTCGGGTCACCATGA
TGCTTTGATCGATGCTGCTCCAGTAACTACAGTGGCATTAGGACTTACCGCTTAGATGACAATAGTGC
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GATTACCTTTTAGTGAATAAGCTGAGTCCATATACTTGTCTAACTAAGAAAGCAGTACAGAGGAAAAACA
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TAATCAATCAAACGCCTACATTTCTGGAAGAAAAAGTCCAATTAGATCATTACACCTTAACTAAGAAGG
CAAATCTTATAAATTTTGCTTGAATTTGTTCTTACTCAAACTACCTTAGAATATGGTATCTTATGAAAA
TATAATATTCTTAAAAATTTGGAGGATAAAATGAAAAGGGTATAAACTTCAATTAGAACTTTAATCCT
ACGCGT AAGCGGCCGCGGCATCTAGATTCAAGAAAATGACCGACCAAGCGACGCCCAACCTGCCATCA
CGAGATTCGATTCCACCGCCGCTTCTATGAAAGG
  
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**Restriction Sites:** Sgfl-MluI

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the sequence identifier above as a point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences , e.g., single nucleotide polymorphisms (SNPs).

**Components:** The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.

**RefSeq:** [NM\\_001098512.3](#)

**Summary:**

Mammals have three different isoforms of cyclic GMP-dependent protein kinase (Ialpha, Ibeta, 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 Ialpha 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 Ialpha 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]

**Locus ID:**

5592

**MW:**

78.5