

## Product datasheet for **SC116254**

### **CGK2 (PRKG2) (NM\_006259) Human Untagged Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                           |
| Product Name:             | CGK2 (PRKG2) (NM_006259) Human Untagged Clone |
| Tag:                      | Tag Free                                      |
| Symbol:                   | CGK2  |
| Synonyms:                 | cGK2; cGKII; PKG2; PRKGR2                     |
| Mammalian Cell Selection: | None  |
| Vector:                   | <u><a href="#">pCMV6-XL4</a></u>              |
| E. coli Selection:        | Ampicillin (100 ug/mL)                        |



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## Fully Sequenced ORF:

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>OriGene ORF sequence for NM_006259 edited
ATGGGAAATGGTTCAGTCAAACCTAAACATTCTAAGCACCCAGATGGACACTCTGGGAAC
CTCACCAGTATGCTCTGCGGAACAAGGTGACAGAGCTGGAGAGAGAGTTGAGGAGGAAG
GATGCTGAGATCCAGGAGCGGGAGTACCATTTGAAGGAGCTGCGGGAGCAGCTGTGGAAG
CAGACTGTGGCCATTGCTGAACTCACAGAGGAGCTCCAGAAACAAGTGCATCCAGCTGAAC
AAGCTGCAGGATGTGGTGCATATGCAGGGAGGAAGCCCGCTTCAGGCCTCTCCAGATAAA
GTGCCTCTTGAGGTCCACCGAAGACCTCTGGATTGGTCTCTCCATAGCAGGAGGGGA
GCAAAGGCTGGCGTGTCTGCTGAGCCAACAACCCGGACCTATGACCTGAACAAACCCCT
GAATTTTCTTTGAGAAAACAAGAGTCAGAAAAGACTCCAGTGAGAAGAAGCTCATTACA
GATGCCCTTAATAAAAATCAGTTTCTGAAAAGACTGGATCCTCAGCAGATCAAAGACATG
GTGGAATGCATGTATGGGAGAACTATCAGCAAGGGAGTTACATTATTAAGCAAGGAGAA
CCAGGAAACCATATCTTTGTGCTGGCAGAGGGTCGACTAGAGGTGTTCCAAGGGGAGAAA
TTGCTGCTCCTCCATCCCTATGTGGACCACATTTGGGGAGCTTGCCATTTTATAACAATTG
ACAAGGACTGCCTCTGTGAAAGCTATTACCAATGTTAAAACATGGGCACTAGATCGAGAG
GTATCCAGAATAAATGAGGAGACAGCCAAGCTAGAGATGAACAATACAGAACTTC
CTCAGAAGTGTATCCTTGTGAAAGATTTACCTGAAGATAAATTAACCAAGATCATTGAC
TGCTTGGAAAGTGAATACTATGACAAAAGGAGATTACATCATTAGAGAGGGCGAGGAAGGA
AGTACCTTTTTTCAATTTGGCAAAAGGAAAGGTAAGTAACACAGAGCACAGAAGGCCAT
GATCAACCACAGCTGATAAAAACACTGCAGAAAGGAGAACTTTGGAGAAAAAGCTCTT
ATCAGTGATGATGTCAGGTGAGTAACTATTGCTGAAGAAAATGATGTTGCATGCCTG
GTTATAGATCGAGAAACATCAACCAAACTGTCGGTACATTTGAAGAGCTGCAAAAATAC
CTTGAAGGATATGTGGCAAACTGAACCGTGATGATGAAAAAGCATGCGAAGCGGTCC
ATGTCTAACTGGAAGCTGTCAAAGCACTCTCTGGAATGATTCAGCTGAAGGAGAAG
GTGGCCAGATTTTCTCATCATCCCCATTCCAGAACCTTGAGATTATTGCAACACTGGGC
GTTGGTGGTTTCGGAAGAGTTGAGCTTGTTAAAGTAAAAAATGAGAATGTTGCTTTTGT
ATGAAGTGTATAAGGAAGAAGCACATAGTTGACACCAAGCAGCAGGAGCATGTCTACTCA
GAGAAGAGGATCCTAGAGGAGCTGTGCTCTCCATTCATTGTGAAATTATATCGTACTTTC
AAGGACAATAAGTATGTATACATGCTTCTGGAGGCCTGCTTAGGTGGGAGCTCTGGAGT
ATATTAAGGGACAGAGGCAGCTTTGATGAACCCACCTCCAAATTTGCGTTGCTTGTTG
ACAGAAGCATTGATTACCTGCATCGACTAGGTATTATCTACAGAGACTTGAACCAGAA
AACTTAATCTAGATGCTGAGGGTTACCTTAAATTTGGTTGACTTTGGATTTGCGAAGAAA
ATAGGGTCTGGACAGAAAACATGGACATTCTGTGGGACTCCAGAATATGTAGCTCCTGAA
GTCATTCTCAACAAGGGACATGACTTCAGTGTGGATTTCTGGTCACTGGGAATCTAGTG
TATGAGCTCCTAACGGGCAACCCACCTTTTCTGGGGTTGACCAATGATGACCTACAAT
TTGATTCTCAAAGGAATTGAAAAATGGATTTTCCAGGAAGATAACACGACGACCTGAG
GATTTGATTCGGAGGCTTTGCAGGCAAAATCCAACAGAAAGGCTGGGAAATCTGAAGAAT
GGAATAAATGACATTAAGAAACACAGGTGGTAAATGGTTTTAATTTGGGAGGGACTGAAA
GCACGGAGCCTTCCATCACCTTTGCAAAGAGAGCTCAAGGGACCCATAGATCACAGCTAC
TTTGACAAATATCCTCCTGAAAAGGGAATGCCTCCAGATGAGCTATCAGGCTGGGATAAA
GACTTCTGA
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|                                     |   |
|-------------------------------------|---|
| <b>5' Read Nucleotide Sequence:</b> | >OriGene 5' read for NM_006259 unedited<br>GGCACCAGCCAGAGTGAAGTATGGTTTTGGTTGCCTTCAAAGATAAATTAGGTCCCTGAG<br>CAAAATGGGAAATGGTTTCAGTGAACCTAAACATTCTAAGCACCCAGATGGACACTCTGG<br>GAACCTCACCAGTATGCTCTGCGGAACAAGGTGACAGAGCTGGAGAGAGAGTTGAGGAG<br>GAAGGATGCTGAGATCCAGGAGCGGGAGTACCATTTGAAGGAGCTGCGGGAGCAGCTGTC<br>GAACAAGCTGCAGGATGTGGTGCATATGCAGGGAGGAAGCCCGCTTCAGGCCTCTCCAGA<br>TAAAGTGCTCTTGAGGTCCACCGAAGACCTCTGGATTGGTCTCTCCATAGCAGGAG<br>GGGAGCAAAGGCTGGCGTGTCTGCTGAGCCAACAACCCGACCTATGACCTGAACAAACC<br>CCCTGAATTTTCTTTGAGAAAGCAAGAGTCAGAAAAGACTCCAGTGAGAAGAAGCTCAT<br>TACAGATGCCCTTAATAAAAATCAGTTTCTGAAAAGACTGGATCCTCAGCAGATCAAAGA<br>CATGGTGGAAATGCATGTATGGGAGAAACTATCAGNCAGGGAGTTACATTATTAAGCAAGG<br>AGAACCAGGANACCATATCTTTGTGCTGGCAGAGGGTCGACTAGAGGTGTTCCAAGGGGA<br>GAAATTGCTGCTCCATCCCTATGTGGACCACATTTGGGGAGCTTGCCATTTTATACAA<br>TTGTACAAGGACTGCCTT |
| <b>Restriction Sites:</b>           | NotI-NotI   |
| <b>ACCN:</b>                        | NM_006259   |
| <b>OTI Disclaimer:</b>              | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).  |
| <b>Components:</b>                  | 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).  |
| <b>Reconstitution Method:</b>       | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>   |
| <b>RefSeq:</b>                      | <a href="#">NM_006259.1</a> , <a href="#">NP_006250.1</a>   |
| <b>RefSeq Size:</b>                 | 3328 bp   |
| <b>RefSeq ORF:</b>                  | 2289 bp   |
| <b>Locus ID:</b>                    | 5593  |
| <b>UniProt ID:</b>                  | <a href="#">Q13237</a>  |
| <b>Cytogenetics:</b>                | 4q21.21   |
| <b>Domains:</b>                     | cNMP, pkinase, S_TK_X, TyrKc, S_TKc   |
| <b>Protein Families:</b>            | Druggable Genome, Protein Kinase  |
| <b>Protein Pathways:</b>            | Gap junction, Long-term depression, Olfactory transduction  |

**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]

Transcript Variant: This variant (1) encodes the longest isoform (a). Variants 1 and 7 encode the same isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.