

## Product datasheet for **RG204421**

### **CARKL (SHPK) (NM\_013276) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CARKL (SHPK) (NM_013276) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CARKL
Synonyms:	CARKL; SHK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204421 representing NM\_013276  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGCGCGGCCGATCACCTCGGCATTGACCTGGCACCACATCTGTGAAGGCAGCTCTGCTGAGGG  
 CCGCGCCCGACGACCCATCCGGGTTTCGAGTGTGGCGAGCTGTGCCCGTCTGCGCGGGCAGAGGCGGC  
 GGTGAGAGCGCGGTGGCCGGGCCCCAGGGCGGGAGCAGGATGTGAGTAGAATCCTCCAAGCCCTACAC  
 GAGTGCCTTGTGCCCTCCCGACCCAGCTCCGGAGCGTCTGGGCATCGGGGTGTCGGGCCAGATGC  
 ATGGAGTCGTGTTTTGAAAACAGGCCAAGGCTGTGAATGGACAGAGGGAGGGATTACCCCGGTGTTGCA  
 GCCCGAGCTGTTAGCCACCTGGTCACGTGGCAGGATGGCCGATGTAGCAGCGAATTCCTGGCCTCTCTG  
 CCCCAGCCGAAGTCTCATCTCAGTGTGGCCACGGGCTTCGGCTGTGCAACCATCTTCTGGCTTTGAAAT  
 ATCGCCAGAGTTCCTGAAGTCTACGACGCAGCCGGTACCATCCAGACTATGTGGTTGCCATGCTGTG  
 TGGCTTGCAAGACCTCTGATGTCCGACCAGAATGCTGCCAGCTGGGGCTATTTCAACACGCAGAGCCAA  
 AGCTGGAACGTAGAGACTGAGGAGCTCGGGTTTTCTGTCCACTGCTCCAGACATCGCCGAGCCTG  
 GCAGTGTGGCGGGCAGAACTTCCACATGTGGTTTGAATCCCAAGGGGACGCAGGTGGGAGTGGCCTT  
 GGGTGATTTACAGGCCTCTGTCTATTCCTGCATGGCCAGAGGACAGATGCAGTTCTCAACATCAGCACC  
 TCGGTTACAGTGGCAGCCTCCATGCCTTCAGGATTCAGCCTGCACAGACTCCAGACCCTACGGCCCCAG  
 TCGCCTACTTCCCATACTTCAACAGGACCTACCTGGGGGTGGCCGCGTCACTCAACGGGGCAATGTGCT  
 GGCCACGTTTCGCCATGCTGGTTCAGTGGATGGCAGATCTAGGCTGGAGGTTGAAGAATCCACTGTG  
 TATTCACGCATGATTCAGGCAGCTGTGCAGCAGAGAGATACCCACCTGACCATCACCCCGACAGTCTGG  
 GGGAGAGCACCTGCGGACCAGCTGGCCTCAGTGACCAGAATCTCCTCCGACCTCTCCCTGGGGCA  
 CGTGACCCGGGCTCTGTGCCGAGGCAATTGTTCAGAACCTGCACTCCATGCTTCCGATTACGACAGTCCAG  
 GAGTGGGGCGTGGAGAGGGTGTGGCAGTGGGAGTGGCGTGTCCAGGAATGACGTGCTGAAGCAGGAGG  
 TGCAGAGGGCTTTCCCTTTCGCCATGCTCTTTGGGCAGGATGTGGATGCAGCTGTCGGGGCAGCTCTGGT  
 CATGCTCCGGAGACACTCAACCAGAAGGAATCT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG204421 representing NM\_013276  
 Red=Cloning site Green=Tags(s)

MAARPITLGLDGTTSVKAALLRAAPDDPSGFVLAASCARAARAEAAVESAVAGPQGREQDVSRIQLALH  
 ECLAALPRPQLRSVVGIGVSGQMHGCVFVWKTGQCEWTEGGITPVFEPRAVSHLVTWQDGRCSSEFLASL  
 PPKSHLSVATGFGCATIFWLLKYRPEFLKSYDAAGTIHDYVVAMLCGLPRPLMSDQNAASWGYFNTQSQ  
 SWNVETLRSSGFPVHLLPDIAEPGSVAGRTSHMWFEIPKGTQVGVALGDLQASVYSCMAQRTDAVLNIST  
 SVQLAASMPSGFQPAQTPDPTAPVAYFPYFNRTYLGVAASLNGGNVLAFTVHMLVQWMADLGLVEESTV  
 YSRMIQAAVQQRDTHLTIPTVLGERHLPDQLASVTRISSDL SLGHVTRALCRGIVQNLHSMPLIQQLQ  
 EWGVERVMGSGSALSARNVVKQEVQRAFPLPMSFGQDVDAAVGAALVMLRRLHNQKES

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_013276

**ORF Size:** 1434 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\\_013276.4](#)

**RefSeq Size:** 3838 bp

**RefSeq ORF:** 1437 bp

**Locus ID:** 23729

**UniProt ID:** [Q9UHI6](#)

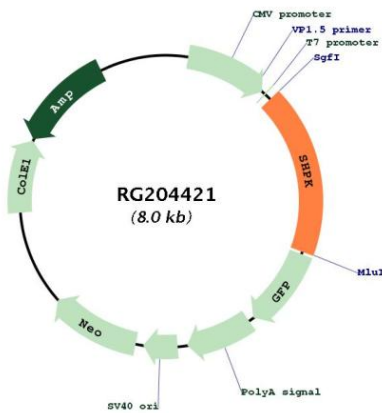
**Cytogenetics:** 17p13.2

**Domains:** FGGY

**Protein Families:** Druggable Genome

**Gene Summary:** The protein encoded by this gene has weak homology to several carbohydrate kinases, a class of proteins involved in the phosphorylation of sugars as they enter a cell, inhibiting return across the cell membrane. Sequence variation between this novel gene and known carbohydrate kinases suggests the possibility of a different substrate, cofactor or changes in kinetic properties distinguishing it from other carbohydrate kinases. The gene resides in a region commonly deleted in cystinosis patients, suggesting a role as a modifier for the cystinosis phenotype. The genomic region is also rich in Alu repetitive sequences, frequently involved in chromosomal rearrangements. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG204421