

Product datasheet for **RC204421**

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:	Myc-DDK
Symbol:	CARKL
Synonyms:	CARKL; SHK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC204421 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGCGCGGCCGATCACCTCGGCATTGACCTGGGCACCACATCTGTGAAGGCAGCTCTGCTGAGGG
 CCGCGCCCGACGACCCATCCGGGTTTCGAGTGTGGCGAGCTGTGCCCGTCTGCCGGGACAGAGCGGC
 GGTGAGAGCGCGGTGGCCGGGCCCCAGGGCGGGAGCAGGATGTGAGTAGAATCCTCCAAGCCCTACAC
 GAGTGCCTTGTGCCCTCCCGACCCAGCTCCGGAGCGTCTGGGCATCGGGGTCTGGGCCAGATGC
 ATGGAGTCGTGTTTTGAAAACAGGCCAAGGCTGTGAATGGACAGAGGGAGGGATTACCCCGGTGTTTGA
 GCCCGAGCTGTTAGCCACCTGGTCACGTGGCAGGATGGCCGATGTAGCAGCGAATTCCTGGCCTCTCTG
 CCCCAGCCGAAGTCTCATCTCAGTGTGGCCACGGGCTTCGGCTGTGCAACCATCTCTGGCTTTTGAAT
 ATCGCCAGAGTTCCTGAAGTCTACGACGACCCGGTACCATCCAGACTATGTGGTTGCCATGCTGTG
 TGGCTTGCCAAGACCTCTGATGTCCGACCAGAATGCTGCCAGCTGGGGCTATTTCAACACGAGAGCCAA
 AGCTGGAACGTAGAGACTGAGGAGCTCGGGTTTTCTGTCCACTGCTCCAGACATCGCCGAGCCTG
 GCAGTGTGGCGGGCAGAACTTCCACATGTGGTTTGAATCCCAAAGGGGACGCAGGTGGGAGTGGCCTT
 GGGTGATTTACAGGCCTCTGTCTATTCTGCATGGCCAGAGGACAGATGCAGTTCTCAACATCAGCACC
 TCGGTTACAGTGGCAGCCTCCATGCCTTCAGGATTCAGCCTGCACAGACTCCAGACCCTACGGCCCCAG
 TCGCCTACTTCCCATACTTCAACAGGACCTACCTGGGGGTGGCCGCGTCACTCAACGGGGCAATGTGCT
 GGCCACGTTTCGCCATGCTGGTTCAGTGGATGGCAGATCTAGGCTGGAGGTTGAAGAATCCACTGTG
 TATTCACGCATGATTCAGGCAGCTGTGCAGCAGAGAGATACCCACCTGACCATCACCCCGACAGTGGTG
 GGGAGAGCACCTGCCGACCAGCTGGCCTCAGTGACCAGAATCTCCTCCGACCTCTCCCTGGGGCA
 CGTGACCCGGGCTCTGTGCCGAGGCATTGTTCAGAACCTGCACTCCATGCTTCCGATTACGACAGTCCAG
 GAGTGGGCGTGGAGAGGGTGTGGCAGTGGGAGTGCCTGTCCAGGAATGACGTGCTGAAGCAGGAGG
 TGACAGAGGGCTTTCCCTTTCGCCATGCTCTTGGGCAGGATGTGGATGCAGCTGTCGGGGCAGCTCTGGT
 CATGCTCCGGAGACCTCAACCAGAAGGAATCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204421 protein sequence
 Red=Cloning site Green=Tags(s)

MAARPITLGIDLGTTSVKAALLRAAPDDPSGFVLAASCARAARAEAAVESAVAGPQGREQDVSRIQLALH
 ECLAALPRPQLRSVVGIGVSGQMHGCVFVWKTGQGCWEWEGGITPVFEPRAVSHLVTWQDGRCSSEFLASL
 PQPKSHLSVATGFGCATIFWLLKYRPEFLKSYDAAGTIHDYVVAMLCGLPRPLMSDQNAASWGYFNTQSQ
 SWNVETLRSSGFPVHLLPDIAEPGSVAGRTSHMWFEPKGTQVGVALGDLQASVYSCMAQRTDAVLNIST
 SVQLAASMPSGFQPAQTPDPTAPVAYFPYFNRTYLGVAASLNGGNVLAFTVHMLVQWMADLGLVEESTV
 YSRMIQAAVQQRDTHLTIPTVLGERHLPDQLASVTRISSDLSLGHVTRALCRGIVQNLHSMPLPIQQLQ
 EWGVERVMGSGSALSARNVVKQEVQRAFPLPMSFGQDVDAAVGAALVMLRRHLNQKES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6311_a12.zip

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: [Q9UHJ6](#)

Cytogenetics: 17p13.2

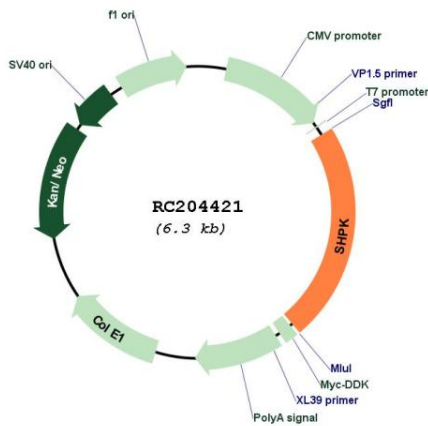
Domains: FGGY

Protein Families: Druggable Genome

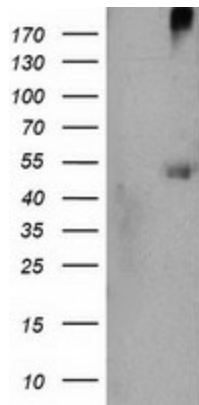
MW: 51.5 kDa

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]

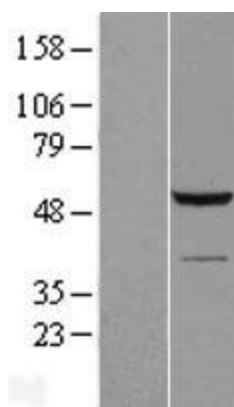
Product images:



Circular map for RC204421



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SHPK (Cat# RC204421, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SHPK (Cat# [TA503210]). Positive lysates [LY415695] (100ug) and [LC415695] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY415695]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204421 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).