

## Product datasheet for **RC205742**

### **MKKS (NM\_170784) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MKKS (NM_170784) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MKKS
Synonyms:	BBS6; HMCS; KMS; MKS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC205742 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGTCCTCGTTTGAAGCTAAGAAGCCATCATTGTGAAGAGTGAACCACTGACAACCTGAGAGAGTCAGGA  
 CCACACTTTCTGTCTTGAAAAGAATTGTAACATCATGCTATGGCCCTTCAGGTAGGCTGAAGCAGCTGCA  
 CAATGGCTTTGGAGGTTACGTGTGTACAACCTCACAGTCTCAGCTCTGCTCAGTCACCTTTTGGTCACA  
 CATCCCATTTTAAAGATCCTGACAGCCTCCATACAGAATCATGTGTCAAGCTTCAGTGATTGTGGCTTAT  
 TCACAGCTATTCTTTGCTGCAACCTGATTGAAAATGTTTCAGAGATTAGGCTTGACACCCACCACTGTCAT  
 TAGATTAATAAACATCTTTGAGTCTTTGCATCAGTTATCTCAAGTCTGAGACCTGTGGTTGTCGAATC  
 CCAGTGGACTTTAGTAGTACTCAGATCCTCCTTTGTTGGTGCAGTATATTAACAAGTAAACCTGCCT  
 GTATGCTCACCAGAAAGGAAACAGAGCATGTCAGTCTTTGATTCTGAGAGCCTTTTGGCTACAATTCC  
 AGAAAATGCTGAAGGCCACATCATTTTAGGAAAGAGTTTAAATGTACCTTAAAAGTCAAAGAGTTATA  
 GATTCCACTGTATTACCTGGGATACTCATTGAAATGTCAGAAGTTCAATTAATGAGGCTATTACCTATCA  
 AAAAATCAACTGCCCTCAAGGTGGCACTCTTTGTACAACCTTATCCGGAGACACTTCTGACACTGGAGA  
 AGGAACTGTGGTGGTCACTTATGGGGTTTCTCTTGAAAATGCAGTCTGGACCAGCTGCTTAACCTAGGA  
 AGGCAGCTAATCAGTGACCACGTAGATCTTGTCTGTGCCAAAAAGTTATACATCCATCTTTGAAGCAGT  
 TTCTCAATATGCATCGTATTATTGCCATAGACAGAATTGGAGTGAAGTCTGATGGAACCCCTGACTAAAA  
 GACAGGAACACAGCCTATTGGATCCCTAGGCTCAATATGTCCTAATAGTTATGGAAGTGTGAAAGATGTG  
 TGCATGCAAAAATTTGGCTCCAAACATTTTTTTCATCTTATTCTAATGAAGCAACAATCTGCAGCTTGC  
 TTCTCTGCAACAGAAAATGACACTGCCTGGGATGAGCTGAAGCTCACGTGTCAGACGGCAGTGCATGTCCT  
 GCAGTTAACACTCAAGGAACCATGGGCTTTGTTGGGAGGTGGCTGTACTGAAACTCATTTGGCTGCATAT  
 ATCAGACACAAGACTCACAACGCCAGAAAGCATTCTCAAGATGATGAATGACTCAAACAGAACCTC  
 AATTAATTGCTGAAGCATTGTCAGTGCCTAGAATCTGTTGTTGGCTCTTTAGAACATGATGGAGGTGA  
 AATTCTCACTGACATGAAGTATGGACACCTTTGGTCAAGTTCAGGCAGATTCTCCCTGTGTTGCTAACTGG  
 CCAGATTTGCTTTACAGTGTGGCTGTGGATTATACAATAGCCAGGAAGAACTCAACTGGTCTTTCTTAA  
 GAAGCACATGTCGTCATTTGTGCCACAAAGCTGCCTCCACATGAAGCTGTGGTCTCAGCCAGCAACCT  
 GACCTTGGACTGTTTACTGCAAAGCTTAGTGGCCTACAGGTGGCTGTAGAGACAGCCAATTTGATTTTG  
 GATCTTTCATATGTTATTGAAGATAAAAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205742 protein sequence  
 Red=Cloning site Green=Tags(s)

MSRLEAKKPSLCKSEPLTTERVTRTSLVKRIVTSCYGPSRRLKQLHNGFGGYVCTTSQSSALLSHLLVT  
 HPILKILTASIQNHVSSFSDCGLFTAILCCNL IENVQRLGLPTTVIRLNKHL LSLCISYLKSETCGCRI  
 PVDFSSTQILLCLVRSILTSKPACMLTRKETEHVSALILRAFLLTIPENAEGHIIIGKSLIVPLKQRVI  
 DSTVLPGLIEMSEVQLMRLLP IKKSTALKVALFCTT LSGDTSDTGEGTVVVSYGVSLENAVLDQLLNLG  
 RQLISDHVDLVLQKVIHPSLKQFLNMHRIIAIDRIGVTLMEPLTKMTGTQPIGSLG SICPN SYGSVKDV  
 CTAKFGSKHFFHLIPNEATICSLLL CNRNDTAWDELKLCQTALHVLQLTLKEPWALLGGCTETHLAAY  
 IRHKTHNDPESILKDDECTQTELQIAEAFCSALESVVGSLEHDGGEIL TDMKYGHLSVQADSPCVANW  
 PDLLSQCGGLYNSQEELNWSFLRSTCRPFVPSCLPHEAVVSASNLTL DCLTAKLSGLQAVETANLIL  
 DLSYVIEDKN

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6521\\_f05.zip](https://cdn.origene.com/chromatograms/mk6521_f05.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_170784

**ORF Size:** 1710 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\\_170784.3](#)

**RefSeq Size:** 2960 bp

**RefSeq ORF:** 1713 bp

**Locus ID:** 8195

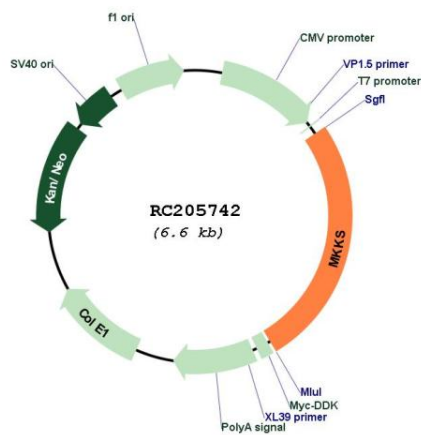
**UniProt ID:** [Q9NPJ1](#)

**Cytogenetics:** 20p12.2

**MW:** 62.3 kDa

**Gene Summary:** This gene encodes a protein which shares sequence similarity with other members of the type II chaperonin family. The encoded protein is a centrosome-shuttling protein and plays an important role in cytokinesis. This protein also interacts with other type II chaperonin members to form a complex known as the BBSome, which involves ciliary membrane biogenesis. This protein is encoded by a downstream open reading frame (dORF). Several upstream open reading frames (uORFs) have been identified, which repress the translation of the dORF, and two of which can encode small mitochondrial membrane proteins. Mutations in this gene have been observed in patients with Bardet-Biedl syndrome type 6, also known as McKusick-Kaufman syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2013]

**Product images:**



Circular map for RC205742