

## Product datasheet for **RG205742**

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

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MKKS (NM_170784) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MKKS
Synonyms:	BBS6; HMCS; KMS; MKS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG205742 representing NM\_170784  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTCTCGTTTGAAGCTAAGAAGCCATCATTGTGTAAGAGTGAACCACTGACAACCTGAGAGAGTCAGGA  
 CCACACTTTCTGTCTTGAAGAATTGTAACATCATGCTATGGCCCTTCAGGTAGGCTGAAGCAGCTGCA  
 CAATGGCTTTGGAGGTTACGTGTGTACAACCTCACAGTCTCAGCTCTGCTCAGTCACCTTTTGGTCACA  
 CATCCCATTTAAAGATCCTGACAGCCTCCATACAGAATCATGTGTCAAGCTTCAGTGATTGTGGCTTAT  
 TCACAGCTATTCTTTGCTGCAACCTGATTGAAAAATGTTTCAGAGATTAGGCTTGACACCCACCCTGTCAT  
 TAGATTAATAAACATCTTTGAGTCTTTGCATCAGTTATCTCAAGTCTGAGACCTGTGGTTGTGCAATC  
 CCAGTGGACTTTAGTAGTACTCAGATCCTCCTTTGTTGGTGCAGTATATTAACAAGTAAACCTGCCT  
 GTATGCTCACCAGAAAGGAAACAGAGCATGTCAGTCTTTGATTCTGAGAGCCTTTTGGCTTACAATTCC  
 AGAAAATGCTGAAGGCCACATCATTTTAGGAAAGAGTTTAATTGTACCTTTAAAAGTCAAAGAGTTATA  
 GATTCCACTGTATTACCTGGGATACTCATTGAAATGTCAGAAAGTTCAATTAATGAGGCTATTACCTATCA  
 AAAAATCAACTGCCCTCAAGGTGGCACTCTTTGTACAACCTTATCCGGAGACACTTCTGACACTGGAGA  
 AGGAACTGTGGTGGTCAAGTATGGGGTTTCTTTGAAAATGCAGTCTTGACCAGCTGCTTAACCTAGGA  
 AGGCAGCTAATCAGTGACCACGTAGATCTTGTCTGTGCCAAAAAGTTATACATCCATCTTTGAAGCAGT  
 TTCTCAATATGCATCGTATTATTGCCATAGACAGAATTGGAGTGAAGTCTGATGGAACCCCTGACTAAAA  
 GACAGGAACACAGCCTATTGGATCCCTAGGCTCAATATGTCCTAATAGTTATGGAAGTGTGAAAGATGTG  
 TGCATGCAAAAATTTGGCTCCAAACATTTTTTCATCTTATTCTAATGAAGCAACAATCTGCAGCTTGC  
 TTCTCTGCAACAGAAAATGACACTGCCTGGGATGAGCTGAAGCTCAGTGTGAGAGGCACTGCATGTCCT  
 GCAGTTAACACTCAAGGAACCATGGGCTTTGTTGGGAGGTGGCTGTACTGAAACTCATTGGCTGCATAT  
 ATCAGACACAAGACTCACAACGCCAGAAAGCATTCTCAAGATGATGAATGACTCAAACAGAACCTC  
 AATTAATTGCTGAAGCATTGTCAGTGCCTAGAATCTGTTGTTGGCTCTTTAGAACATGATGGAGGTGA  
 AATTCTCACTGACATGAAGTATGGACACCTTTGGTCAAGTTCAGGCAGATTCTCCCTGTGTTGCTAACTGG  
 CCAGATTTGCTTTACAGTGTGGCTGTGGATTACAATAGCCAGGAAGAACTCAACTGGTCTTTCTTAA  
 GAAGCACATGTCGTCATTTGTGCCACAAAGCTGCCTCCACATGAAGCTGTGGTCTCAGCCAGCAACCT  
 GACCTTGGACTGTTTACTGCAAAGCTTAGTGGCCTACAGGTGGCTGTAGAGACAGCCAATTTGATTTTG  
 GATCTTTTCATATGTTATTGAAGATAAAAAAC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG205742 representing NM\_170784  
 Red=Cloning site Green=Tags(s)

MSRLEAKKPSLCKSEPLTTERVRTLSVLKRIVTSCYGPSRLKQLHNGFGGYVCTTSQSSALLSHLLVT  
 HPILKILTASIQNHVSSFSDCGLFTAILCCNLIENVQRLGLPTTVIRLNKHL LSLCISYLKSETCGCRI  
 PVDFSSTQILLCLVRSILTSKPACMLTRKETEHVSALILRAFLLTIPENAEGHIIILGKSLIVPLKQORVI  
 DSTVLPGIL IEMSEVQLMRLPIKSTALKVALFCTT LSGDSDTGEGTVVVSYGVSLENAVLDQLLNLG  
 RQLISDHVDLVLQKVIHPSLKQFLNMHRIIAIDRIGVTLMEPLTKMTGTQPIGSLGSI CPNSYGSVKDV  
 CTAKFGSKHFFHLIPNEATICSLLL CNRNDTAWDELKLTQ TALHVLQLTLKEPWALLGGCTETHLAAY  
 IRHKTHNDPESILKDDECTQTELQLIAEAFCSALESVVGSLEHDGGEIL TDMKYGHLWSVQADSPCVANW  
 PDLLSQCGCLYNSQEELNWSFLRSTCRPFV PQSCLPHEAVVSASNL TLDCL TAKLSGLQVAVETANLIL  
 DLSYVIEDKN

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**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\\_170784.1](#), [NP\\_740754.1](#)

**RefSeq Size:** 2540 bp

**RefSeq ORF:** 1713 bp

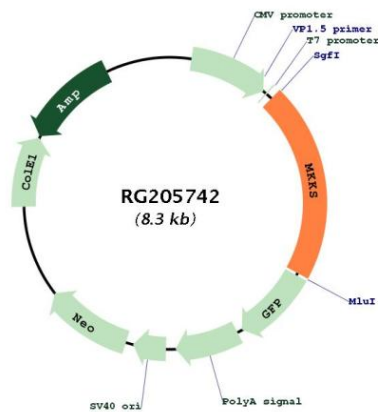
**Locus ID:** 8195

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

**Cytogenetics:** 20p12.2

**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 RG205742