

## Product datasheet for **RC200872**

### **GCP4 (TUBGCP4) (NM\_014444) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GCP4 (TUBGCP4) (NM_014444) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GCP4
Synonyms:	76P; GCP-4; GCP4; Grip76; MCCR3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC200872 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGATCCACGAACTGCTCTTGGCTCTGAGCGGGTACCCTGGGTCCATTTTCACCTGGAACAAGCGGAGTG  
GCCTGCAGGTATCGCAGGACTTCCTTTTCTCCACCCAGTGAGACCAGTGTCTGAATCGACTCTGCCG  
GCTCGGCACAGACTATATTTCGCTTCACTGAGTTTATTGAACAGTACACGGGCCATGTGCAACAGCAGGAT  
CACCATCCATCTCAACAGGGCCAAGGTGGGTTACATGGAATCTACCTGCGGGCCTTCTGCACAGGGCTGG  
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CTCCATATCACATGTCAACTACTTCTAGACCAGTTCAGCTTCTTTTTCCCTCTGTGATGGTTGTAGTA  
GAACAAATAAAAGTCAAAGATTCATGGTTGTCAAATCCTGAAACAGTCTACAAACACAGCTGTGGGG  
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TCTGGTAAATGTCAGTGCCAGCCAGAAGAGGACGAGGAGGATCTGGGCATTGGGGGACTGACAGGAAAAAC  
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AAGACACTTTTGTGCAGAGCTGCACCGTCTCAAGCAGCAGCCACTCTTCAGCTTGGTGGACTTTGAACA  
GGTGGTGGATCGCATTTCGAGCACTGTGGCTGAGCATCTCTGGAAGTTGATGGTGAAGAATCCGATTTA  
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CTGCAGCACTGCTGGCCCTACAAATGCAGCGCAAGCACCTCAAGTCGAACCAGACTGATGCAATCAAGT  
GGCGCCTAAGAAATCACATGGCATTGTTGGTGGATAATCTTCAGTACTATCTCCAGGTAGATGTGTTGGA  
GTCTCAGTTCTCCAGCTGCTTCATCAGATCAATTCTACCCGAGACTTTGAAAGCATCCGATTGGCTCAT  
GACCACTTCTGAGCAATTTGCTGGCTCAATCCTTTATCCTATTGAAACCTGTGTTTCACTGCCTGAATG  
AAATCCTAGATCTCTGTACAGTTTTTGTTCGCTGGTCAGTCAGAACCTAGGCCCACTGGATGAGCGTGG  
AGCCGCCAGCTGAGCATTCTCGTGAAGGGCTTTAGCCGCCAGTCTTCACTCCTGTTCAAGATTCTCC  
AGTGTTCGGAATCATCAGATCAACTCAGATTTGGCTCAACTACTGTTACGACTAGATTATAACAAATACT  
ATACCCAGGCTGGTGGAACTCTGGGCAGTTTCGGGATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC200872 protein sequence  
 Red=Cloning site Green=Tags(s)

MIHELLLALSGYPGSIFTWNKRSLQVSQDFPFLHPSETSVLNRLCRLGTDYIRFTEFIEQYTGHVQQDD  
 HHPSQQQGGLHGIYLRFACTGLDSVLQPYRQALLDLEQEFGLDPHLSISHVNYFLDQFQLLFPSVMVVV  
 EQIKSQIHGCQILETVYKHSCGGLPPVRSALEKILAVCHGVMYKQLSAWMLHGLLLDQHEEFFIKQGPS  
 SGNVSAQPEEDEDLGIIGLTKQLRELQDLRLIEEENMLAPSLKQFSLRVEILPSYIPVRVAEKILFVG  
 ESVQMFENQNVNLTRKGSILKNQEDTFAAELHRLKQQPLFSLVDFEQVVDRIIRSTVAEHLWKLMEESDL  
 LGQLKIKDFYLLGRGELFQAFIDTAQHMLKTPPTAVTEHDVNVAFQSSAHKVLDDDDNLLPLLHLTIEY  
 HGKEHKDATQAREGPSRETSPREAPASGWAALGLSYKVQWPLHILFTPAVLEKYNVVFYKLLSVRRVQAE  
 LQHCWALQMQRKHLKSNQTDIAIKWRLRNHMAFLVDNLQYYLQVDVLESQFSQLLHQINSTRDFESIRLAH  
 DHFLSNLLAQSFILLKPVFHLNEILDLCFSFSLVSQNLGPLDERGAAQLSILVKGFSRQSSLLFKILS  
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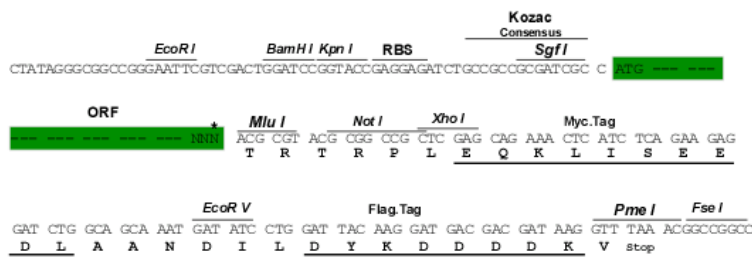
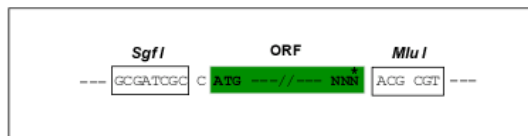
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6691\\_e12.zip](https://cdn.origene.com/chromatograms/mk6691_e12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_014444

**ORF Size:** 1998 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_014444.5](#)

**RefSeq Size:** 4178 bp

**RefSeq ORF:** 2001 bp

**Locus ID:** 27229

**UniProt ID:** [Q9UGJ1](#)

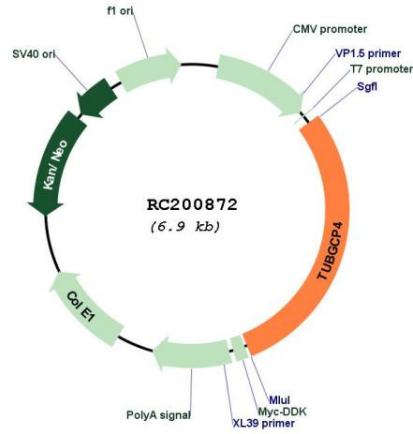
**Cytogenetics:** 15q15.3

**Domains:** Spc97\_Spc98

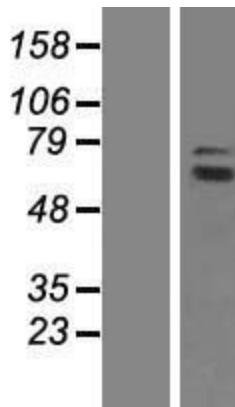
**MW:** 76 kDa

**Gene Summary:** This gene encodes a component of the gamma-tubulin ring complex, which is required for microtubule nucleation. In mammalian cells, the protein localizes to centrosomes in association with gamma-tubulin. Crystal structure analysis revealed a structure composed of five helical bundles arranged around conserved hydrophobic cores. An exposed surface area located in the C-terminal domain is essential and sufficient for direct binding to gamma-tubulin. Mutations in this gene that alter microtubule organization are associated with microcephaly and chorioretinopathy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2015]

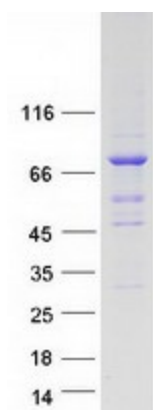
Product images:



Circular map for RC200872



Western blot validation of overexpression lysate (Cat# [LY415269]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200872 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TUBGCP4 protein (Cat# [TP300872]). The protein was produced from HEK293T cells transfected with TUBGCP4 cDNA clone (Cat# RC200872) using MegaTran 2.0 (Cat# [TT210002]).