

## Product datasheet for **RG200872**

### **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:	TurboGFP
Symbol:	TUBGCP4
Synonyms:	76P; GCP-4; GCP4; Grip76; MCCR3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG200872 representing NM\_014444  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

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 ATACCCAGGCTGGTGAACTCTGGGCAGTTTCGGGATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG200872 representing NM\_014444  
 Red=Cloning site Green=Tags(s)

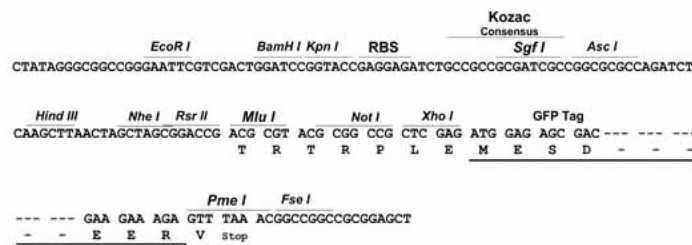
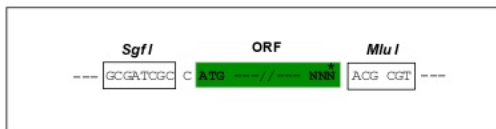
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TRTRPLE - GFP Tag - V

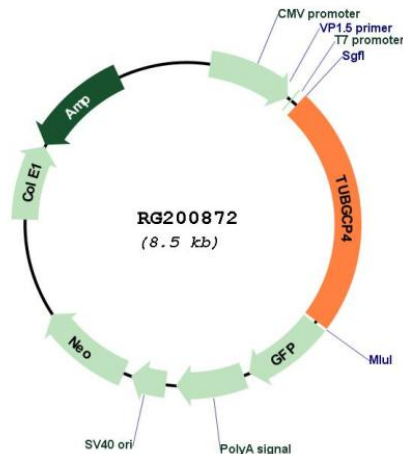
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



## Plasmid Map:



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.

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

RefSeq Size: 3087 bp

RefSeq ORF: 2001 bp

Locus ID: 27229

UniProt ID: [Q9UGJ1](#)

Cytogenetics: 15q15.3

Domains: Spc97\_Spc98

**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]