

## Product datasheet for **RG210602**

### SKA2 (NM\_182620) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SKA2 (NM\_182620) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** SKA2  
**Synonyms:** FAM33A  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG210602 representing NM\_182620  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAGGCGGAGGTCGATAAGCTGGAAGCTGATGTTCCAGAAAGCTGAGTCTGATCTGGATTACATTCAAT  
 ACAGGCTGGAATATGAAATCAAGACTAATCATCCTGATTCAGCAAGTGAGAAAAATCCAGTTACACTCTT  
 AAAGGAATTGTCAGTGATAAAGTCTCGATATCAAACCTTTGTATGCCCGCTTTAAACCAAGTTGCTGTTGAG  
 CAGAAAGAGAGTAAGAGCCGATTTGTGCTACTGTGAAAAAGACTATGAATATGATACAAAACTACAGA  
 AGCAAACAGACCTGGAGCTGTCACCACTGACTAAAGAAGAGAAAAGTGCAGCAGCAATTCAAATTTCA  
 CATGCCAGATTTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG210602 representing NM\_182620  
 Red=Cloning site Green=Tags(s)  
 MEAEVDKLELMFQKAESDLDYIQYRLEYEIKTNHPDSASEKNPVTLLKELSVIKSRYQTLYARFKPVAVE  
 QKESKSRICATVKKTMNMIQKLQKQTDLELSPLTKEEKTAEEQFKFHMPDL

TRTRPLE - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3800\\_b01.zip](https://cdn.origene.com/chromatograms/ja3800_b01.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_182620

**ORF Size:** 363 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\\_182620.4](#)

**RefSeq Size:** 2990 bp

**RefSeq ORF:** 366 bp

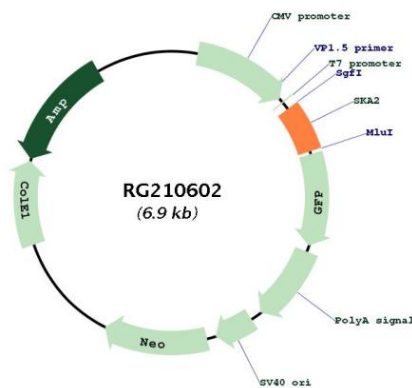
**Locus ID:** 348235

**UniProt ID:** [Q8WVK7](#)

**Cytogenetics:** 17q22

**Gene Summary:** Component of the SKA1 complex, a microtubule-binding subcomplex of the outer kinetochore that is essential for proper chromosome segregation (PubMed:17093495, PubMed:19289083, PubMed:23085020). Required for timely anaphase onset during mitosis, when chromosomes undergo bipolar attachment on spindle microtubules leading to silencing of the spindle checkpoint (PubMed:17093495). The SKA1 complex is a direct component of the kinetochore-microtubule interface and directly associates with microtubules as oligomeric assemblies (PubMed:19289083). The complex facilitates the processive movement of microspheres along a microtubule in a depolymerization-coupled manner (PubMed:17093495, PubMed:19289083). In the complex, it is required for SKA1 localization (PubMed:19289083). Affinity for microtubules is synergistically enhanced in the presence of the ndc-80 complex and may allow the ndc-80 complex to track depolymerizing microtubules (PubMed:23085020).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RG210602