

## Product datasheet for **RG219045**

### **RALGPS1 (NM\_014636) Human Tagged ORF Clone**

#### **Product data:**

|                                  |                         |
|----------------------------------|-------------------------|
| <b>Product Type:</b>             | Expression Plasmids     |
| <b>Tag:</b>                      | TurboGFP                |
| <b>Symbol:</b>                   | RALGPS1                 |
| <b>Synonyms:</b>                 | RALGEF2; RALGPS1A       |
| <b>Mammalian Cell Selection:</b> | Neomycin                |
| <b>Vector:</b>                   | pCMV6-AC-GFP (PS100010) |
| <b>E. coli Selection:</b>        | Ampicillin (100 ug/mL)  |



**ORF Nucleotide Sequence:** >RG219045 representing NM\_014636  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGTACAAGAGGAATGGTCTGATGGCTAGCGTGTGGTCACCTCTGCCACTCCACAGGGCAGCAGCAGCT  
 CGGACTCTCTGGAGGGCCAGAGCTGCGACTATGCCAGCAAGAGCTATGATGCCGTTGTCTTCGATGTCTT  
 GAAAGTGACCCAGAGGAGTTTGCTAGCCAGATTACATTAATGGATATACCTGTGTTTAAAGCTATCCAG  
 CCGGAGGAAGTACCCAGCTGTGGATGGAGTAAGAAGGAGAAACACAGTCTTGCCCTAACGTTGTGGCCT  
 TTACCCGGAGGTTTAACAGGTACGTTTTTGGGTTGTACGAGAAATTTAACAGCACAGACTTTAAAAAT  
 AAGGGCAGAAATCCTCAGCCATTTTGTGAAAAATAGCCAAGAACTTCTAGAAGTCAACAACCTTCATTCT  
 CTCATGTCTGTGGTATCAGCATTACAAAGTGTCCCATCTTCAGGCTGACAAAAACCTGGGCTCTTTTAA  
 ATCGAAAGACAAGACTACCTTTGAGAAATGGACTACCTGATGTCGAAAGAAGATAATTACAAGCGGAC  
 ACGGGAATATATCCGAGCCTGAAGATGGTTCCAAGTATTCCTATCTAGGAATCTATCTTCTGGATTTA  
 ATCTACATTGATTCTGCATATCCTGCCTCAGGCAGTATCATGGAATGAACAAAGTCCAATCAGATGA  
 ACAATATTCTTGAATAATTGCTGATTACAAGTTTCTGCAGCTATGATCACCTCACCACCTGCCCA  
 TGTGCAGAAGTACCTGAAGTCCTACGCTACATTGAAGAGCTCCAGAAGTTTGTGGAAGACGACAACCTAC  
 AAATGTGCTCAGAATCGAACCAGGAAGCAGCTCTCAAGACTAGTCTTCAAGGAAGATCTTGCAG  
 GTCCCTCTGCTGGCTCCGTTCTGCGAGGTTTCAAGGAGGCGCCACCTGTCTGACACATCTGTTGCTGG  
 CAGCCTCCCCACACCTCCAGTCCCCAGACACAGGAAGGCCACAGCCTAGGCAACAATATGATGTGTGAG  
 TTGAGTGTAGTTGAGAGTAAAAGTGCACATTCCTATCGGAGAAAGCAAGGCACCTACTGGACGACAGTG  
 TCCTAGAGTCCCGCAGCCCCGAAGGGCCTGGCTCTGACCTCCTCTGCTGTACCAATGGACTCTC  
 CCTAGGCAGTAGTGAGAGCTCAGAGTTTAGTGAAGAGATGTCTTCAGGGCTGGAAGCCCCACCGGCCCG  
 TGCATCTGTTCTCTGGGAACTCCGCAGCTGTGCCACCATGGAGGGGCTCTGAGAAGAAAAACCTGC  
 TCAAGGAAGGGCGGAAGCCTGCGCTGTCTCTGGACAGGTAAGGTCATACTCTCAGGATCCACCCT  
 CCTGTACTACGGAGCCAAGTCTTGGGGGCACAGACAGAAACTATAATCCACACCTGGCAAAAAG  
 GTTTCATCGTGGGCTGGATGGTGCAGCTGCCGATGACCCGAGCAGCCAGATATCTTCCAGCTGAACA  
 ACCCTGACAAAGGCAATGTTTACAAGTTTCAGACTGGTCCCGATTTTCATGCAATACTGTGGCACAAGCA  
 TTTGGATGATGCATGTAAGCAACAGGCCTCAGGTACCTGCAACCTTATGTCATTGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG219045 representing NM\_014636  
 Red=Cloning site Green=Tags(s)

MYKRNLMAVSLVTSATPQSSSSDSLEGQSCDYASKSYDAVVFVFLKVTPEEFASQITLMDIPVFKAIQ  
 PEELASCGWSKKEKHSAPNVVAFRRFNQVSFWVREILTAQTLKIRAEILSHFVKIAKKLLELNLHS  
 LMSVVSALQSAPIFRLTKTWALLNRKDKTFEKL DYLSKEDNYKRTREYIRSLKMVPSIPYLGIYLLDL  
 IYIDSAYPASGSIMENEQRSNQMNILRIADLQVSCSYDHLTTLPHVQKYLKSVRYIEELQKFVEDDNY  
 KLSLRIEPCGSSPRLVSSKEDLAGPSAGSGSARFSRRPTCPDTSVAGSLPTPPVPRHRKSHSLGNNMMCQ  
 LSVVESKSATFPSEKARHLLDDSVLESRSRRGLALTSSSAVTNGLSLGSSESSEFSEEMSSGLESPTGP  
 CICS LGNSAAVPTMEGLRRKTLKKEGRKPALSSWTRYVWILSGSTLLYYGAKSLRGTD RKHYKSTPGKK  
 VSI VGMVQLPDDPEHPDIFQLNNPDKGNVYKFQTGSRFHAILWHKHLDDACKSNRPQVPANLMSFE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

## Cloning Scheme:



**ACCN:** NM\_014636

**ORF Size:** 1671 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.

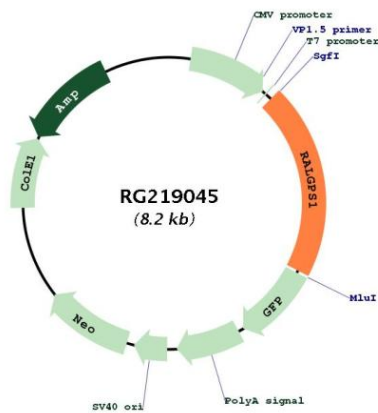
**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_014636.3](#)

**RefSeq Size:** 6342 bp

|               |                                                                                                                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RefSeq ORF:   | 1674 bp                                                                                                                                                                                                   |
| Locus ID:     | 9649                                                                                                                                                                                                      |
| UniProt ID:   | <a href="#">Q5JS13</a>                                                                                                                                                                                    |
| Cytogenetics: | 9q33.3                                                                                                                                                                                                    |
| Domains:      | PH, RasGEF                                                                                                                                                                                                |
| Gene Summary: | Guanine nucleotide exchange factor (GEF) for the small GTPase RALA. May be involved in cytoskeletal organization (By similarity). Guanine nucleotide exchange factor for. [UniProtKB/Swiss-Prot Function] |

### Product images:



Circular map for RG219045