

## Product datasheet for **RC212719**

### **RASGRP2 (NM\_001098671) Human Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                           |
| Product Name:             | RASGRP2 (NM_001098671) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                       |
| Symbol:                   | RASGRP2                                       |
| Synonyms:                 | CALDAG-GEFI; CDC25L                           |
| Mammalian Cell Selection: | Neomycin                                      |
| Vector:                   | pCMV6-Entry (PS100001)                        |
| E. coli Selection:        | Kanamycin (25 ug/mL)                          |



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**ORF Nucleotide Sequence:**

>RC212719 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAGGCACCCTGGACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGTGCATCGAAGCCT  
 TCGATGACTCCGGGAAGGTGCGGGACCCGAGCTGGTGGCATGTTCTCATGATGCACCCTGGTACAT  
 CCCCTCTCTCAGCTGGCGGCCAAGCTGTCCACATCTACCAACAATCCCGGAAGGACAACCTCAATTCC  
 CTGCAGGTGAAAACGTGCCACCTGGTACAGTACTGGATCTCCGCCTCCAGCGGAGTTTGAAGTGAACC  
 CGGAGTTGGTGGAGCAGATCAAGGAGCTGAAGGCTCTGCTAGACCAAGAAGGGAACCGACGGCACAGCAG  
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 CCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAACAGTG  
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 GCGGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTGACAT  
 CCACTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC212719 protein sequence  
 Red=Cloning site Green=Tags(s)

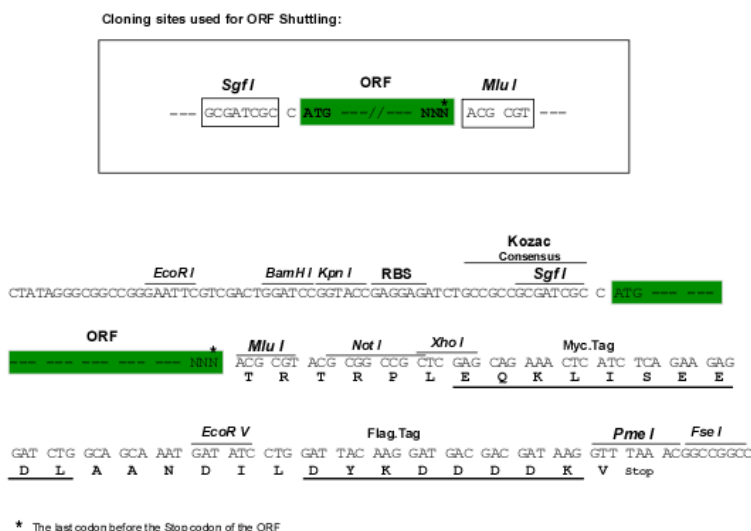
MAGTLDLDKGCTVEELLRGCIEAFDDSGKVRDPQLVRFMMHPWYIPSSQLAAKLLHIYQQSRKDNSNS  
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 ALVVEHIEKMVESVFRNFDVDGDGHISQEEFQIRGNFPYLSAFGLDQNDQDCISREEMVSYFLRSSV  
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 APSPSPMHSHHRAFSLPRPGRGSRPPEIREEEVQTVEDGVDFIHL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6610\\_a09.zip](https://cdn.origene.com/chromatograms/mk6610_a09.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001098671

ORF Size: 1827 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\\_001098671.2](#)

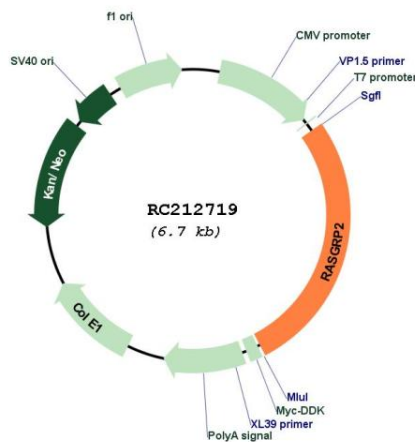
RefSeq Size: 2284 bp

RefSeq ORF: 1830 bp

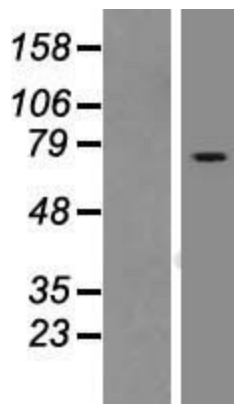
**Locus ID:** 10235  
**UniProt ID:** [Q7LDG7](#)  
**Cytogenetics:** 11q13.1  
**Protein Pathways:** Chemokine signaling pathway, MAPK signaling pathway  
**MW:** 69.2 kDa  
**Gene Summary:**

The protein encoded by this gene is a brain-enriched nucleotide exchanged factor that contains an N-terminal GEF domain, 2 tandem repeats of EF-hand calcium-binding motifs, and a C-terminal diacylglycerol/phorbol ester-binding domain. This protein can activate small GTPases, including RAS and RAP1/RAS3. The nucleotide exchange activity of this protein can be stimulated by calcium and diacylglycerol. Four alternatively spliced transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jan 2016]

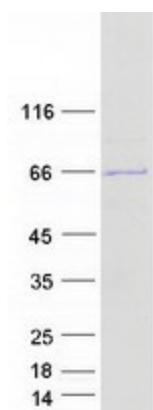
### Product images:



Circular map for RC212719



Western blot validation of overexpression lysate (Cat# [LY406966]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC212719] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RASGRP2 protein (Cat# [TP312719]). The protein was produced from HEK293T cells transfected with RASGRP2 cDNA clone (Cat# RC212719) using MegaTran 2.0 (Cat# [TT210002]).