

## Product datasheet for **RG212473**

### **RASGRP1 (NM\_005739) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RASGRP1 (NM_005739) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RASGRP1
Synonyms:	CALDAG-GEFI; CALDAG-GEFII; IMD64; RASGRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG212473 representing NM\_005739  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

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TATGCACAGAAGAAAATAGAATCCCTCCAGCTTGAAAAAGCAATCATGTCTTAGCTCAAATGGAGCAGG  
GTGACTGTTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG212473 representing NM\_005739  
 Red=Cloning site Green=Tags(s)

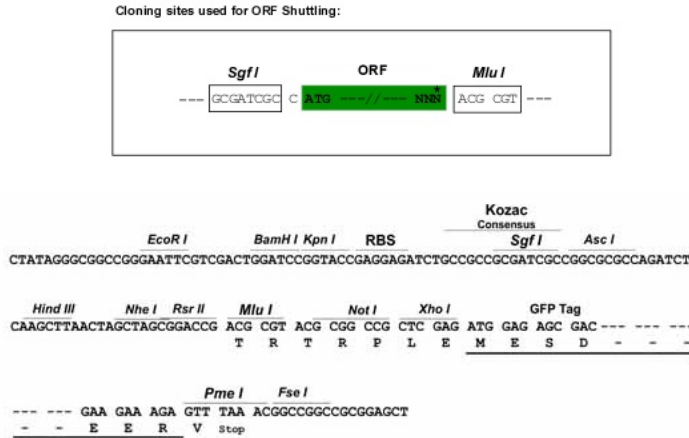
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KIPILGVHLKDLISLYEAMPDYLEDGKVN VHKLLALYNHISELVQLQEVAPPLEANKDLVHLLTLSLDLY
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SQEEFEKIAASF PFCVMDKDREGLISRDEITAYFMRASSIYSKLG LGFPHNFQETTYLKPTFCDN CAG
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FTFPNGEAVEHGEEKDRTIMLMGVSSQKISLR LKRAVAHKATQTESQPWIGSEGPSGPFVLS SPSRKAQ
DTLYVLPSP TSPCSPVLVRKRAFVKWENKDSL IKSKEELRHLRLPTYQELEQEINTL KADNDALKIQLK
YAQKKIESLQLEKSNHVLAQMEQGDCS
  
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_005739

**ORF Size:** 2391 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\\_005739.4](#)

**RefSeq Size:** 5021 bp

**RefSeq ORF:** 2394 bp

**Locus ID:** 10125

**UniProt ID:** [O95267](#)

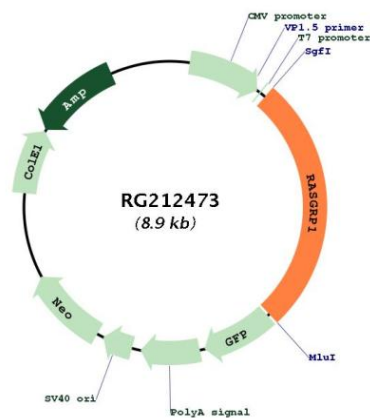
**Cytogenetics:** 15q14

**Domains:** RasGEFN, RasGEF, EFh, DAG\_PE-bind

**Protein Pathways:** MAPK signaling pathway, T cell receptor signaling pathway

**Gene Summary:** This gene is a member of a family of genes characterized by the presence of a Ras superfamily guanine nucleotide exchange factor (GEF) domain. It functions as a diacylglycerol (DAG)-regulated nucleotide exchange factor specifically activating Ras through the exchange of bound GDP for GTP. It activates the Erk/MAP kinase cascade and regulates T-cells and B-cells development, homeostasis and differentiation. Alternatively spliced transcript variants encoding different isoforms have been identified. Altered expression of the different isoforms of this protein may be a cause of susceptibility to systemic lupus erythematosus (SLE). [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG212473