

## Product datasheet for **RC228472**

### **RASGRP 4 (RASGRP4) (NM\_001146203) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RASGRP 4 (RASGRP4) (NM_001146203) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RASGRP 4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC228472 representing NM\_001146203  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAACAGAAAAGACAGTAAGAGGAAGTCCCACCAGGAATGCACCGGAAAAATAGGAGGGCGAGGCCGGC  
 CCCGCCAAGTGCGCCGCCACAAGACATGCCCCAGCCCTCGGAAAATCAGCAAGGTCATGGCTTCCATGAA  
 CCTGGGCCTGCTGAGTGAGGGCGGCTGCAGCGAAGATGAGCTGCTGGAGAAAATGCATCCAGTCTTCGAT  
 TCAGCTGGCAGCCTGTGCCACGAGGACCACATGCTCAACATGGTCTGGCCATGCACAGCTGGGTGCTGC  
 CGTCCGCCGACCTGGCTGCCCGCTGCTGACCTCATACCAGAAGGCCACAGGGGACCCAGGAGCTGAG  
 ACGGCTGCAGATCTGTCACCTGGTCAGGTAAGTGGCTGATGCGACACCCTGAGGTGATGCACCAGGATCCC  
 CAGCTAGAAGAAGTCATAGGTCGTTTCTGGCCACCGTGGCCCGGAGGGCAACTCAGCCAGAGAAGAC  
 TGGGAGACTCTTCTGACCTCTGAGCCCTGGTGGCCCTGGCCCCCACTCCCAATGAGCAGCCAGGCCCT  
 GGGCAAAAAGCGAAAGTGCCTTGGCTTTTCGACCACTTGAGAGCGGGGAGCTGGCTCAGCACCTCACC  
 TACCTGGAGTTCGGTCTCCAGGCTATCACGCCCCAGGACCTGCGGAGCTACGTTTTGCAGGGCTCAG  
 TACGAGGCTGCCCGCCCTGGAGGGCTCCGTAGGTCTCAGCAACAGCGTGTCCCGCTGGGTGCAGGTGAT  
 GGTGCTGAGCCGTCCCGGCCCTACAGCGTGCACAGGTGCTGGACAAGTTCATTCACGTGGCACAGAGG  
 CTCCACCAGCTGCAGAAATTTCAACACGCTGATGGCAGTACAGGGGGCCTGTGTCACAGTCCCATCTCCA  
 GACTCAAGGACTCCCATGCCACCTGAGCCCTGACAGCACCAAGCTCTCCCTGGACCTCTTCTACACGGA  
 AGACGAGATCTATGAGCTTTCTATGCCCGGAGCCGCTGTGCCAAGAGCCTGCCACCCTCCCTTTC  
 AATGCACCTCTGGTGGTGGAGTGGGCCCTGGTGTGACACCAAGCCGGACAGGGTACACTGGGTCGGC  
 ATGTGGAGCAGCTGGTGGAGTCTGTGTTCAAGAATTATGACCTGAAGGCCGAGGAACAATCTCTCAGGA  
 GGACTTTGAGCGACTCTCGGGCAATTTTCCCTTGCCTGCCATGGGCTTACCCACCCCCACGCCAGGGG  
 AGAGGATCCTTACGACAGAGAGGAGCTGACAGGGTACCTGCTCCGGGCCAGCGCCATCTGCTCCAAGTTGG  
 GCCTGGCCTTCTGCACACCTTCCATGAGGTACCTTCCGAAAGCCTACCTTCTGCGACAGCTGCAGTGG  
 CTTCTCTGGGTGTACCAAGCAAGGCTACCGCTGTCGGGAGTGCAGGCTGTGTTGCCACAAACTGC  
 AGAGACCAGGTGAAGGTAGAATGTAAGAAGAGGCCAGGGGCCAAGGGCGATGCAGGACCCCGGAGCTC  
 CTGTCCCATCCACACCAGCTCCCATGCCAGCTGTGGCTCCGAGGAAAATCACTCCTACACGCTATCCCT  
 GGAGCTGAGACTGGGTGCCAGCTTCGCATGCCTGGACCCAGACTGAATCCCCACACCCTTCTGGGAA  
 ACAGATACGGTCCCTGCCCGGTGATGGACCCACCATCAACTGCATCCTCCAAGTGGATTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC228472 representing NM\_001146203  
 Red=Cloning site Green=Tags(s)

MNRKDSKRKSHQECTGKIGGRGRPRQVRRHKTCPSPREISKVMASMNLLGLLSEGGCSEDELLEKCIQSF  
 SAGSLCHEDHMLNMVLAHMSWVLPADLAARLLTSYQKATGDTQELRRLQIHLVRYWLMRHPEVMHQDP  
 QLEEVIGRFWATVAREGNSAQRRLGDSSDLLSPGGPPLPMSPLGKKRKVSLFFDHLETGELAQHLT  
 YLEFRSFQAITPQDLRSYVLQGSVRGCPALEGSVGLSNSVSRWVQVMVLSRPGPLQRAQVLDKFIHVAQR  
 LHQLQNFNTLMAVTGGLCHSAISRKDSHAHLSPDSTKLSLDLFYTEDEIYELSYAREPRCPKSLPPSPF  
 NAPLVVEWAPGVTPKPDVTLGRHVEQLVESVFKNYDPEGRGTISQEDFERLSGNFPFACHGLHPPPRQG  
 RGSFSREELTGYSLLRASAIKSKLGLAFLHTFHEVTFRKPTFCDSGFLWGVTKQGYRCREGLCCHKHC  
 RDQVKVECKKRPKAGDAGPPGAPVPTPAPHASCGSEENHSYTLSEPETGCQLRHAWTQTESPHPSWE  
 TDTVPCPVMPPSTASSKLDL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8068\\_c10.zip](https://cdn.origene.com/chromatograms/mk8068_c10.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001146203

**ORF Size:** 1743 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\\_001146203.1](#), [NP\\_001139675.1](#)

**RefSeq ORF:** 1746 bp

**Locus ID:** 115727

**UniProt ID:** [Q8TDF6](#)

**Cytogenetics:** 19q13.2

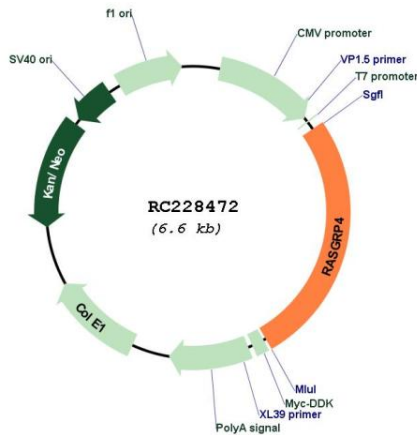
**Protein Families:** Druggable Genome

**Protein Pathways:** MAPK signaling pathway

**MW:** 64.3 kDa

**Gene Summary:** The protein encoded by this gene is a member of the Ras guanyl nucleotide-releasing protein (RasGRP) family of Ras guanine nucleotide exchange factors. It contains a Ras exchange motif, a diacylglycerol-binding domain, and two calcium-binding EF hands. This protein was shown to activate H-Ras in a cation-dependent manner in vitro. Expression of this protein in myeloid cell lines was found to be correlated with elevated level of activated RAS protein, and the RAS activation can be greatly enhanced by phorbol ester treatment, which suggested a role of this protein in diacylglycerol regulated cell signaling pathways. Studies of a mast cell leukemia cell line expressing substantial amounts of abnormal transcripts of this gene indicated that this gene may play an important role in the final stages of mast cell development. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2009]

**Product images:**



Circular map for RC228472