

Product datasheet for **RG228468**

RASGRP 4 (RASGRP4) (NM_001146207) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASGRP 4 (RASGRP4) (NM_001146207) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RASGRP 4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG228468 representing NM_001146207
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACAGAAAAGACAGTAAGAGGAAGTCCCACCAGGAATGCACCGGAAAAATAGGAGGGCGAGGCCGGC
 CCCGCCAAGTGCGCCGCCACAAGACATGCCCCAGCCCTCGGAAATCAGCAAGGTCATGGCTTCCATGAA
 CCTGGGCCTGCTGAGTGAGGGCGGCTGCAGCGAAGATGAGCTGCTGGAGAAATGCATCCAGTCTTCGAT
 TCAGCTGGCAGCCTGTGCCACGAGGACCACATGCTCAACATGGTCTGGCCATGCACAGCTGGGTGCTGC
 CGTCCGCCGACCTGGCTGCCCGCTGCTGACCTCATACCAGAAGGCCACAGGGGACACCCAGGAGCTGAG
 ACGGCTGCAGATCTGTCACCTGGTCAGGTAAGTGGCTGATGCGACACCCTGAGGTGATGCACCAGGATCCC
 CAGCTAGAAGAAGTCATAGGTCGTTTCTGGCCACCGTGGCCCGGAGGGCAACTCAGCCAGAGAAGAC
 TGGGAGACTCTTCTGACCTCTGAGCCCTGGTGGCCCTGGCCCCCACTCCCAATGAGCAGCCAGGCCCT
 GGGCAAAAAGCGAAAGTGCCTTGGCTTTTCGACCACTTGAGAGCGGGGAGCTGGCTCAGCACCTCACC
 TACCTGGAGTTCGGTCCCTCCAGGCTATCACGGCCCTCTGGAGCTCACTGAGCTCCTTGCTCCACACA
 ACAACTACGCCCGCTACCGCCGACCTGGGCTGGCTGCGCGGGTTTCCGGCTGCCTGTAAGTGGCGTGCA
 CCTCAAGGACCTGGTGTCCCTGCATGAGGCACAGCCCGACAGGTTGCCTGACGGCCCGCTGCACCTACCC
 AAGCTGAACAACCTCTACCTGCGGCTGCAGGAGCTGGTGGCCCTCCAAGGGCAGCATCCACCCTGCAGCG
 CCAATGAGGATCTGCTGCACCTGCTCACGCTCTCCCTGGACCTCTTCTACACGGAAGACGAGATCTATGA
 GCTTTCTATGCCCGGGAGCCGCTGTCCCAAGAGCCTGCCACCCTCCCCCTCAATGCACCTCTGGTG
 GTGGAGTGGGCCCTGGTGTGACACCAAGCCGGACAGGGTCACTGGGTCGGCATGTGGAGCAGCTGG
 TGGAGCTGTGTTCAAGAATTATGACCTGAAGGCCGAGGAACAATCTCTCAGGAGACTTTGAGGACT
 CTGGGGCAATTTCCCTTCGCTGCCTGCCATGGGCTTCAACCCACCCACGCCAGGGGAGAGGATCCTTCAGC
 AGAGAGGAGCTGACAGGGTACCTGCTCCGGGCCAGCGCCATCTGCTCCAAGTTGGGCTGCCTTCTGCTG
 ACACCTTCCATGAGGTCACCTTCCGAAAGCCTACCTTCTGCGACAGCTGCAGTGGCTTCTCTGGGGTGT
 CACCAAGCAAGGCTACCGCTGTCGGGAGTGCAGGCTGTGTTGCCACAAACTGCAGAGACCAGGTGAAG
 GTAGAATGTAAGAAGAGGCCAGGGGCCAAGGGCGATGCAGGACCCCGGAGCTCCTGTCCATCCACAC
 CAGCTCCCATGCCAGCTGTGGCTCCGAGGAAAATCACTCCTACACGCTATCCCTGGAGCCTGAGACTGG
 GTGCCAGCTTCGCATGCCTGGACCCAGACTGAATCCCCACACCCTTCTGGGAAACAGATACGGTCCCC
 TGCCCGGTGATGGACCCACCATCAACTGCATCCTCCAAGCTGGATTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG228468 representing NM_001146207
 Red=Cloning site Green=Tags(s)

MNRKDSKRKSHQECTGKIGGRGRPRQVRRHKTCPSPREISKVMASMNLLGLLSEGGCSEDELLEKCIQSF
 SAGSLCHEDHMLNMVLAHMSWVLPADLAARLLTSYQKATGDTQELRRLQIHLVRYWLMRHPEVMHQDP
 QLEEVIGRFWATVAREGNSAQRRLGDSSDLLSPGGPGLPMSPLGKKRQVSLVDFHLETGELAQHLT
 YLEFRSFQAITALLELLELLASHNNYARYRRTWAGCAGFRLPVLGVHLKDLVSLHEAQPDRLPDGRLLHLP
 KLNNLYLRLQELVALQGHPPCSANEDLLHLLTSLDLFYTEDEIYELSYAREPRCPKSLPPSPFNAPLV
 VEWAPGVTPKPDVTLGRHVEQLVESVFKNYDPEGRGTISQEDFERLSGNFPFACHLHPPPRQGRGFS
 REELTYLLRASAIKSLGLAFLHTFHEVTRKPTFCDS CSGFLWGVTKQGYRRCREGLCCHKHCRDQVK
 VECKKRPAGKGDAGPPGAPVPTPAPHASCGSEENHSYTLSEPETGCQLRHAWTQTESPHPSWETDTPV
 CPVMDPPSTASSKLDL

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001146207

ORF Size: 1728 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_001146207.1](#), [NP_001139679.1](#)

RefSeq Size: 2944 bp

RefSeq ORF: 1731 bp

Locus ID: 115727

UniProt ID: [Q8TDF6](#)

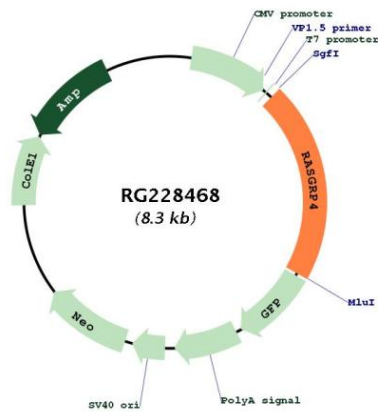
Cytogenetics: 19q13.2

Protein Families: Druggable Genome

Protein Pathways: MAPK signaling pathway

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 RG228468