

Product datasheet for **RG226150**

RASGRP1 (NM_001128602) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASGRP1 (NM_001128602) 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:**

>RG226150 representing NM_001128602
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGCACCCCTGGGCAAGGCGAGAGAGGCTCCGCGGAAACCTTCCATGGCTGCAGAGCTGCCTCTAAAG
 CAAGACTAGAGGCAAAGCCAGCCAACAGCCCTTCCCCTCCCATCCCAGCTTGGCCACATCACCCAGTT
 CCGAATGATGGTGTCTCTGGGACATTTAGCCAAAGGAGCCAGCCTGGACGATCTCATTGACAGCTGCATT
 CAATCTTTTGTGCAGATGGAAACCTGTGTGCAAGTAACCAACTGTTGCAAGTCATGCTGACCATGCACC
 GAATTGTCATCTCCTCTGCAGAAGTCTCCAAAAAGTTATCACCCCTCTATAAGGATGCTTTGGCAAAGAA
 TTCACCAGGACTTTGCCTGAAGATCTGTTATTTTGAAGTATTGGATAACAGAATTCTGGGTGATGTTT
 AAAATGGACGCCAGCTTGACAGACACTATGGAGGAGTTTCAGGAAGTGGTAAAGCTAAGGGTGAGGAGT
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 AAGATCCCCATTCTGGGTGTGCATCTCAAGGACCTCATCTCCCTGTATGAAGCCATGCCTGACTATCTGG
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 CCTTTGTGCTGTCTTCCCAAGGAAGACAGCCAGGATACTCTATATGTGCTTCCAGTCCCACCTCTCC
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 TCAAAGGAGGAGCTCCGTACCTCAGACTGCCTACCTACCAAGAAGTGGAAACAGGAAATAAATACTCTGA
 AAGCAGATAATGATGCCCTAAAGATCCAAGTAAATATGCACAGAAGAAAATAGAATCCCTCCAGCTTGA
 AAAAAGCAATCATGTCTTAGCTCAAATGGAGCAGGGTACTGTTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

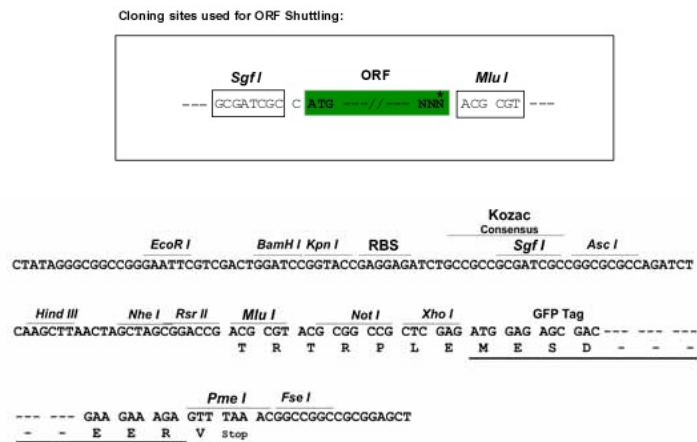
Protein Sequence: >RG226150 representing NM_001128602
 Red=Cloning site Green=Tags(s)

MGTLGKAREAPRKPSHGCR AASKARLEAKPANSPPFSPHSLAHITQFRMMVSLGHLAKGASLDDLDISCI
 QSF DADGNLCRSNQLLQVMLT MHRIVISSAELLQKVITLYKDALAKNSPGLCLKICYFVRYWITEFWVMF
 KMDASLTD TMEEFQELVKAKGEELHCR LIDTTQINARDWSRKL TQRIKSNTSKKRKVSL LFDHLEPEELS
 EHLTYLEFKSFRRI SFSDYQNYLVNSCVKENPTMERSIALCNGISQWVQLMVL SRPTPQLRAEVFIKFIQ
 VAQKLHLQNFNTLMAVIGGLCHSSISRLKETSSHVPHEINKVLGEMTELLSSSRNYDNYRRAYGECTDF
 KIPILGVHLKDLISL YEAMPDYLEDGKVN VHKLLALYNHISEL VQLQEVAPPLEANKDLVHLLTSLDLY
 YTEDEIYELSYAREPRNHRAPSVFKNYDHDQDGYISQEEFEKIAASF PFCVMDKDREGLISRDEITAY
 FMRASSIYSKLG LGFP HNFQETTYLKPTFC DNCAGFLWGVIKQGYRCKDCGMNCHKQCKDLVVF ECKKRA
 KNPVAPTENNTSVGPVSNLCSL GAKDLLHAPEEGPFTFPNGEAVEHGEESKDR T IMLMGVSSQKISLR LK
 RAVAHKATQTESQPWIGSEGPSGPFV LSSPRKTAQDTLYVLPSP TSPCSPVLVRKRAFVKWENKDSL I K
 SKEELRHLRLPTYQELEQEINTLKADNDALKIQLKYAQKKIESLQLEKSNHVLAQMEQGDCS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001128602

ORF Size: 2286 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_001128602.2](#)

RefSeq Size: 4943 bp

RefSeq ORF: 2289 bp

Locus ID: 10125

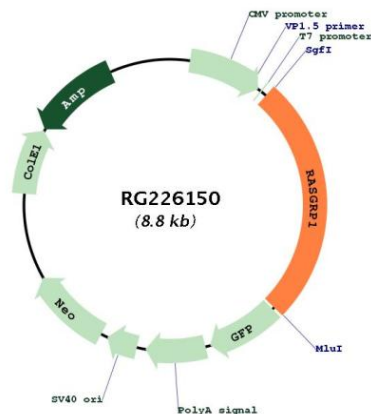
UniProt ID: [O95267](#)

Cytogenetics: 15q14

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 RG226150