

Product datasheet for **RC226150**

RASGRP1 (NM_001128602) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASGRP1 (NM_001128602) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RASGRP1
Synonyms:	CALDAG-GEFI; CALDAG-GEFII; IMD64; RASGRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC226150 representing NM_001128602
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCACCTGGGCAAGGCGAGAGAGGCTCCGCGGAAACCTTCCATGGCTGCAGAGCTGCCTCTAAAG
 CAAGACTAGAGGCAAAGCCAGCCAAACAGCCCTTCCCCTCCCATCCCAGCTTGGCCACATCACCCAGTT
 CCGAATGATGGTGTCTCTGGGACATTTAGCCAAAGGAGCCAGCCTGGACGATCTCATTGACAGCTGCATT
 CAATCTTTTGTGCAGATGGAAACCTGTGTGCAAGTAACCAACTGTTGCAAGTCATGCTGACCATGCACC
 GAATTGTCATCTCCTCTGCAGAAGTCTCCAAAAAGTTATCACCCCTCTATAAGGATGCTTTGGCAAAGAA
 TTCACCAGGACTTTGCCTGAAGATCTGTTATTTTGAAGTATTGGATAACAGAATTCTGGGTCTGTTTT
 AAAATGGACGCCAGCTTGACAGACACTATGGAGGAGTTTCAGGAAGTGGTAAAGCTAAGGGTGAGGAGT
 TACATTGCCGCTGATTGACACAACCTCAAATCAATGCCCGTGACTGGTCCAGGAACTTACTCAAAGGAT
 AAAATCAAATACCAGCAAGAAACGAAAGTCTCCCTGCTTTTGACCATCTGGAACAGAAAGAGCTATCC
 GAGCACCTCACCTACCTGAGTTCAAGTCTTCCGGAGGATATCGTTCTCTGATTATCAGAATTACCTTG
 TAAATAGCTGTGTGAAGGAAAACCCACCATGGAGCGATCTATTGCTCTGTGCAACGGCATCTCCAGTG
 GGTACAACCTGATGGTTCTCAGCCGCCCCACGCCGAGCTCCGAGCAGAAGTCTTCATCAAGTTTATCCAG
 GTGGCTCAGAAGCTCCACCAACTACAGAAGTCAATACACTGATGGCTGTGATAGGTGGGCTGTGTACACA
 GCTCAATCTCGAGGCTCAAGGAGACAAGTTCGCATGTCCACATGAAATCAATAAGGTTCTCGGTGAGAT
 GACTGAGCTGTGCTCCTCCTCCAGAACTACGACAATTACCGGCGAGCCTATGGAGAGTGCACCGACTTC
 AAGATCCCCATTCTGGGTGTGCATCTCAAGGACCTCATCTCCCTGTATGAAGCCATGCCTGACTATCTGCA
 AGGACGGGAAAGTGAACGTCCATAAGCTACTGGCCCTATAACAATCATATCAGTGAATTGGTCCAGCTGCA
 AGAGGTGGCCCCACCCTTGGAGGCTAACAAAGACTTGGTACACTTGTGACGTTATCCCTGGATCTTTAC
 TACACTGAGGATGAAATCTATGAGCTTTCCTATGCCCGGGAACCAAGGAACACAGAGCTCCATCTGTCT
 TCAAGAATATGATCACGACCAGGATGGATACATTTCTCAGGAAGAATTTGAAAAGATTGCTGCGAGTTT
 TCCATTTTCTTCTGTGTGATGGACAAAGACAGGGAAGGCCTCATCAGCAGGGATGAGATCACAGCCTAC
 TTCATGAGAGCCAGCTCAATCTATTCCAAGCTGGGCTGGGCTTTCCTCACAACCTCCAAGAGACCACCT
 ACCTGAAGCCCACTTTTTGTGACAACCTGTGCTGGATTTCTCTGGGAGTGATCAAACAAGGATATCGATG
 TAAAGACTGCGGGATGAAGTGTCAAAACAATGCAAAGATCTGGTTGTGTTTGTGTTGAGTGAAGAAGCGAGCC
 AAGAACCAGTAGCTCCCACAGAGAACAACACTTCTGTGGGGCCAGTGTCCAACCTTTGCTCATTGGGAG
 CCAAAGATCTGCTCCATGCACCTGAGGAAGGACCTTTTACATTCCCTAATGGGGAGGCTGTGGAACATGG
 TGAGGAGAGTAAGGATCGGACCATCATGCTGATGGGAGTGTCTCACAGAAGATTTCTTCTCGGCTGAAG
 AGGGCTGTTGCCACAAGGCCACCCAGACTGAATCACAGCCTTGGATTGGCAGTGAGGGCCCTTCAGGTC
 CCTTTGTGCTGTCTTCCCAAGGAAGACAGCCAGGATACTCTATATGTGCTTCCAGTCCCACCTCTCC
 ATGTCCTAGCCAGTCTTGGTCAGAAAGCGGGCTTTTGTCAAGTGGGAGAATAAAGACTCCCTCATAAAA
 TCAAAGGAGGAGCTCCGTACCTCAGACTGCCTACCTACCAAGAAGTGGAAACAGGAAATAAATACTCTGA
 AAGCAGATAATGATGCCCTAAAGATCCAACCTGAAATATGCACAGAAGAAAATAGAATCCCTCCAGCTTGA
 AAAAAGCAATCATGTCTTAGCTCAAATGGAGCAGGGTACTGTTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC226150 representing NM_001128602
 Red=Cloning site Green=Tags(s)

MGTLGKAREAPRKPSHGCR AASKARLEAKPANSPPFSPHSLAHITQFRMMVSLGHLAKGASLDDLDISCI
 QSF DADGNL CRSNQLLQVMLT MHRIVISSAELLQKVITLYKDALAKNSPGLCLKICYFVRYWITEFWVMF
 KMDASL TDTMEEFQELVKAKGEELHCR LIDTTQINARDWSRKL TQRIKSNTSKKRKVSLLFDHLEPEELS
 EHLTYLEFKSFRRISFSDYQNYLVNSCVKENPTMERSIALCNGISQWVQLMVL SRPTPQLRAEVFIKFIQ
 VAQKLHQLQNFNTLMAVIGGLCHSSISRLKETSSHVPHEINKVLGEMTELLSSSRNYDNYRRAYGECTDF
 KIPILGVHLKDLISL YEAMPDYLEDGKVN VHKLLALYNHISEL VQLQEVAPPLEANKDLVHLLTLSLDLY
 YTEDEIYELSYAREPRNHRAPSVFKNYDHDQDGYISQEEFEKIAASFPSFCVMDKDREGLISRDEITAY
 FMRASSIYSKLG LGFPNHFQETTYLKPTFCDCNAGFLWGVIKQGYRCKDCGMNCHKQCKDLVVFECKKRA
 KNPVAPTENNTSVGPVSNLCSLGA KDLLHAPEEGPFTFPNGEAVEHGEESKDRTIMLGMVSSQKISLR LK
 RAVAHKATQTESQPWIGSEGPSGFVLSPPRKAQDTLYVLPSP TSPCSPVLVRKRAFVKWENKDSL I K
 SKEELRHLRLPTYQELEQEINTLKADNDALKIQLKYAQKKIESLQLEKSNHVLAQMEQGDCS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

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 ORF: 2289 bp

Locus ID: 10125

UniProt ID: [O95267](#)

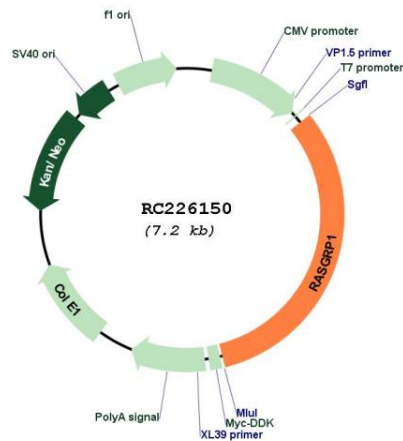
Cytogenetics: 15q14

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

MW: 86.4 kDa

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 RC226150