

Product datasheet for **RR217561**

Rasgrf1 (NM_001170531) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rasgrf1 (NM_001170531) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rasgrf1
Synonyms:	GNRP; P140 RAS-GRF
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR217561 representing NM_001170531 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGCAGAAAGCCATCCGACTGAACGATGGCCACGTCGTGTCCCTGGGACTGCTGGCCAGAGAGACGGCA
CGCGCAAAGGCTACCTGAGCAAGAGGAGTTCGGACAACCCAAAATGGCAAACCAAGTGGTTTGCCTGCT
GCAGAACCTGCTCTTCTACTTCGAAAGTACTCGAGCTCTCGGCCCTCGGGGCTCTACCTGCTGGAGGGC
AGTATCTGCAAACGCATGCCCTCCCCAAGCGAGGGACCTCCTCCAAGGAGTCCGACAAACAGCATT
ACTTCACAGTGAACCTTCCAATGACAGCCAGAAGTCCCTAGAGCTGAGGACCGATGACTCCAAGGACTG
TGACGAGTGGGTGGCAGCGATTGCTCGCGCCAGCTACAAGATACTGGCCACAGAGCATGAGGCGCTCATG
CAGAAGTACCTGCACCTGCTGCAGGTGGTGGAGACAGAGAAGACCGTGGCTAAGCAGCTGCGACAGCAGC
TCGAGGATGGCGAGGTGAGATCGAGCGCCTGAAGGCAGAGATTGCAAACCTGATCAAGGACAATGAACG
TATCCAGTCCAACCAGCTGGTTGCCCTGAGGATGAGGACAGTACATCAAGAAAATTAAGAAGGTACAG
AGTTTCTTCGCGGATGGCTGTGCCGGCAAAGTGGAAAGAATCATCCAGGACTACATCCGGTCTCCTC
ATGCCGACAGCATGCGCAAGAGGAACAGGTGGTGTTCAGCATGCTGGAAGCTGAGGCGGACTGCTGCA
GCAACTACACATCCTTGTCAACAATTTCTGCGCCCACTGCGCATGGCCGCCAGCTCTAAGAAACCCCT
ATAACACATGACGACGTGAGCAGTATCTTTCTGAACAGTGAACCATCATGTTTCTGCACCATCTTCT
ACCAAGGCCTGAAGGCCGATCGCCAGCTGGCCACCCTGGTTCTGGCGGACCTGTTTCGACATCCTGCT
GCCAATGCTTAACATCTACCAGGAGTTCGTCGCAACCACAGTACAGTCTCCAGATCCTAGCACACTGC
AAGCAAACCGGGACTTTGACAAGCTCCTCAAGCAGTATGAGGCCAAGCCAGACTGCGAGGAGCGCACAC
TGGAGACCTTCTCACCTATCCAATGTTCCAGATCCCCAGGTACATCCTGACACTCCATGAGCTGCTGGC
CCACACACCTCATGAGCATGTGGAGCGCAACAGCCTGGACTATGCCAAATCCAACTAGAGGAGCTGTCC
AGGGTCATGCACGACGAAGTCAGTGAGACCGAGAACATCCGAAAACCTGGCCATTGAGCGTATGATCA
CCGAGGGCTGTGAGATCCTCCTTGACACCAGCCAGACCTTTGTGCGCCAAGGTTCCCTCATCCAGGTGCC
CATGTGCAGAAAAGGGCAAGATCAACAAGGGCCGCTGGGGTCTCTGTCCCTTAAGAAAGAAGGTGAGCGC
CAGTGTTCCTGTTCTCCAAGCATCTCATCTGACACAGAGGCTCTGGTAGCAAACCTGCACCTAACCA



AGAATGGCGTGATTTCCCTCATTGACTGCACTCTACTGGATGATCCAGAAAACATGGATGATGACGGCAA
AGGACAAGAGGTAGATCACCTGGACTTTAAGATTTGGGTGGAGCCAAAGGATTCACCACCTTCACAGTC
ATCCTGGTGGCCTCATCCAGGCAGGAGAAGCGGCATGGACCAGTGACATCATCCAGTGCCTGGATAATA
TCCGCTGCAACGGGCTCATGATGAATGCCTTTGAAGAAAATCCAAGGTCACCGTGCCGCAGATGATCAA
GTCTGATGCTTCCCTATACTGTGATGATGTTGACATTCGCTTCAGCAAAACCATGAATTCCTGCAAAGTG
CTGCAGATCCGCTATGCCAGCGTGGAGCGCCTGCTGGAGCGCTGACTGATCTTCGCTTCCTGAGTATTG
ACTTTCTCAACACCTTCCTGCACTCCTATCGAGTCTTCACCGATGCTGTGGTGGTCTAGACAAGTGTGAT
CAGCATCTACAAAAGCCATCACTGCGATTCTGCCAGGTCAGTGAACCTCTGTTCTCCAGTAGCCAC
AACACCAAACCTTCTGTACGGAGATGCCCAAGTCGCCTCGTGCCAGCCGCAAGTTCCTCGCCGCGCGC
CCTTGGCCATCGGCACCTTCGTCCCAGTCCGCCCGGGAAGTTGTCTCTCAACATCCCATCATCACAGG
CGGCAAGGCGCTGGAACCTGGCTTCGCTCGGCTGCCCTCCGACGGCTACACCAACATACACTCGCCATA
TCTCCCTTCGGCAAAACACGCTGGACACCAGCAAGCTCTGTGTGGCCAGCAGCTTGACCAGAACGCCGG
AGGAGATTGATATGACCACTCTAGAGGAGTCATCAGGCTTCAGGAAGCCGACCTCAGACATCTTGAAGA
AGAGTCTGATGATGACCAGAGTGTAGACGACACAGAAGTGTCTCCACCAACACCGAAATCATTGAGA
AACAGAATCACTCAAGAGTTCCTACTCTTAACTACAACAGTGGAAATCATGATGACATGTGCGCATCTGA
TGACAGTAACCCAGCCCTCTGTGAGTACCTCTGCCTTTGCCATAGCGACTGCAGGAGCCAATGAAAG
CCCCGCAAAACAGGAGATATATCGAAGGATGTCTTTGGCCAACACAGGGTATTCCTCTGACCAGAGAAAT
ATCGACAAAGAGTTCTGTGATCCGCAGAGCGGCCACCAACCGTGTACTGAATGTGTTGCGCCACTGGGTCA
CCAAGCACTCCCAGGACTTTGAAACTGACGACCTCCTCAAATACAAGGTGATCTGCTTTCTGGAAGAGGT
CATGCATGACCCAGACCTTCTACCACAAGAGCGAAAGGCAGCAGCCAACATCATGAGGACTCTGACCCAG
GAAGAAATAACTGAAAACCATAGCATGCTGGATGAGCTTACTAATGACGGAGGGTGTGAAGACTGAGC
CCTTCGAAAACCACTCAGCCATGGAGATAGCAGAGCAGCTGACCTGCTGGATCACCTTGTCTTCAAGAG
TATTCTTATGAGGAATCTTTGGCCAGGGCTGGATGAAGGCAGATAAGAATGAAAGGACACCTTACATT
ATGAAAACCAACAGACATTTCAACCATATCAGTAACTTGATCGCTTCAGAAATTCCTCGAAACGAGGAGG
TCAGTGCAAGGGCAAGCACCATCGAGAAGTGGTGGCTGTTGCCGACATTTGCCGCTGCCTGCACAATA
CAATGCTGTGCTGGAGATCACTTCTCCATCAACCGCAGCGCAATCTTCCGACTCAAGAAGACATGGCTC
AAAGTTTCTAAGCAGACGAAATCTCTGTTTGACAAGCTCCAAAAGCTTGTGTCATCAGATGGCCGATTTA
AGAACCTCAGAGAACTTTGCGAAATGTGATCCACCCTGTGTCCCTTACCTGGGATGTACCTGACCGA
CTTGGCATTCTCGAGGAAGGAACACCAATTACACAGAGGACGGCCTGGTCACTTCTCCAAGATGAGG
ATGATCTCCATATTATCCGCGAGATTCGCCAGTTTCAGCAGACTACTTACAAAATCGAGCCCCAGCCAA
AGGTAACCTCAGTACTTAGTGGATGAAACCTTTGTGTTGGACGACGAAAGTCTGTATGAGGCCTCCCTCCG
AATTGAACCAAACTCCCACA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR217561 representing NM_001170531
 Red=Cloning site Green=Tags(s)

MQKAIRLNDGHVVSLLGLLAQRDGRKGYLSKRSSDNPKWQTKWFALLQNLLFYFESDSSSRPSGLYLLEG
 SICKRMPSPKRGTSKESDKQHYYFTVNFSDNSQKSLELRDSDSKDCDEWAAIARASYKILATEHEALM
 QKYLHLLQVVETEKTVAKQLRQQLLEDGEVEIERLKAIEIANLIKDNERIQSNQLVAPEDSDIKKIKKVQ
 SFLRGLWLCRRKWKNI IQDYIRSPHADSMRKRNVVFSMLEAEAEVYVQLHILVNNFLRPLRMAASSKKPP
 ITHDDVSSIFLNSETIMFLHQIF YQGLKARIASWPTLVLADLFDILLPMLNIYQEFVRNHQYSLQILAHC
 KQNRDFDKLLKQYEAKPDCERTLETFLTYPMFQIPRYILTLHELLAHTPHEHVERNSLDYAKSKLEELS
 RVMHDEVSETENIRKNLAIERMITEGCEILLDTSQTFVRQGS LIQVPMSEK GKINKGRGLSLSLKKEGE
 QCFLFSKHLIICTRGSGSKLHLTKNGVISLIDCTLLDDPENMDDDGKGQEVDFKLIWVEPKDSPPFTV
 ILVASSRQEKAAWTSDIIQCVDNIRCNGLMNNAFEENSKVTPVQMIKSDASLYCDDVDIRFSKTMNSCKV
 LQIRYASVERLLERLTDLRFLSIDFLNTFLHSYRVFTDAVVVLDKLIS IYKPKITAIPARSELLFSSSH
 NTKLLYGDAPKSPRASRFSSPPPLAIGTSSPVRRLSLNIPIITGGKALELASLGCPSDGYTNIHSP
 SPFGKTTLDTSKLCVASSLTRTPEEIDMTLEESSGFRKPTSDILKEESDDQSDVDDTEVSPPTPKSFR
 NRITQEFPLFNYSNGIMMTCRDLMDSNRSPLSATSAFAIATAGANESPAKIEYRMSLANGTGYSDDQRN
 IDKEFVIRRAATNRVLNVLRHWVTKHSQDFETD DLLKYKVICFLEEVMHDPDLLPQERKAAAANIMRTL
 TQEEITENHSMDELLEMTGKTEPFENHSAMEIAEQLTLLDHLVFKSIPYEEFFGQGMKADKNERTPYI
 MKTTRHFNHISNLIASEILRNEEVSARASTIEKWAVADICRCLHNYNAVLEITSSINRS AIFRLKKTWL
 KVSQKTKSLFDKLQKLVSSDGRFKNLRETLRNCDPVCPYLGMYLTDLAFLEEGTPNYTEDGLVNF SKMR
 MISHIIREIRFQQTYYIEPQPKVTQYLVD ETFVLDDESLYEASLRIEPKLPT

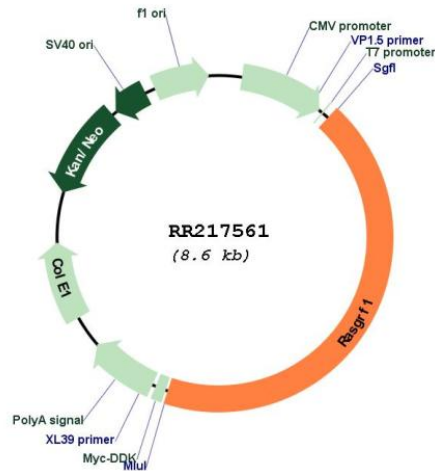
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001170531

ORF Size: 3732 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_001170531.1](#), [NP_001164002.1](#)

RefSeq Size: 4226 bp

RefSeq ORF: 3735 bp

Locus ID: 192213

UniProt ID: [P28818](#)

Cytogenetics: 8q31
MW: 142.7 kDa
Gene Summary: a paternally expressed imprinted gene [RGD, Feb 2006]