

Product datasheet for **RG208092**

GRF2 (RAPGEF1) (NM_198679) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRF2 (RAPGEF1) (NM_198679) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GRF2
Synonyms:	C3G; GRF2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG208092 representing NM_198679 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCAATGCTATTGAAAAACAGAAGCCCTTGAACGAAGTCATCTGTACCCCTGGAAACAAGACTCTC
AGCGTTCTCATCTCTTCCCTTACCATGAAGCTGATGGACAAATCCACTACCCAAAATCAAGAGAAC
GCCATCAAAGAAGGGAAAACCAGCTGAGGTGTCCGTAAGATTCCAGAGAAGCCTGTGAACAAAGAGGCA
ACAGACAGATTTCTACCAGAGGGCTACCCTCTCCCTTGGATCTGGAGCAGCAGGCAGTAGAATTTATGT
CCACCAGTGCTGTGGCTCCAGGTCTCAAAGGCAGAAGAACCTGAGCTGGCTGGAGGAGAAAGAGAAGGA
AGTTGTCAGTGCCCTGCGCTACTTTAAGACCATTGTGGACAAAATGGCAATTGATAAGAAGTACTGGAG
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AGCACAGCTCAGCCCTCTTCTCTGCTATAGCCGAGTGTACCAAAGCCTCGCCAACCTCATTTCGCTGGTC
TGACCAAGTGATGCTGGAAGGCGTGAACCTCAGAAGACAAGGAGATGGTGACGACTGTGAAGGGGGTCATC
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CGAGCCCCGTGAAGCCAGTTCCTGCCAGCAAGCCTGATGGCCAGCAGAGCTCCCCTGACAGACCG
CGAGGTAGAGATCCTAAACAAGACGACTGGGATGTCACAGTCAACTGAGCTCTCCAGATGCCACGGAT
GAAGAGGTGCGCCCCCAAGCCTCCTCGCTGGCATTCCGGTGGTGTGATAATAGTCTCCACCAGCAT
TGCCACCAAGAAAAGACAGTCGGCGCCGTCCTTACCAGTGGCTGTGGTGGCCCCCATGAGCCGAGC
CACCAGTGGCTCCAGTTTGCCTGTTGGAATCAATAGGCAGGATTTTGTGTTGACTGTTACGCACAGAGG
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TTGGCCCTCCTTCCAGTGCCTCTTGGCGCCATCCCCAGCCAGACGGACCTCTGGCCCCAGGGCAGCA
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GGCTGCAGGGTGTCTACGAGCGGCATCCCTCGCAGTATGACAACATCTCTGGGGAGGACCTGCAGAGCA
CAGCCCCGATCCCATCCGTCCCCACGCGCCCTTTGCTGTATTCTGCCCTTTCAGCATGGAGGTTCCCTC
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AGCTCGTCTCCTCCGAGCCTACCGGGCCGCCCTCTCGAGGTGGAACCGCCGTCATCCCGTACCTGG
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CTCAAGCGGTGGCAGCAGTTCACATCCTCGACAGCATGCGCTGCTTCCAGCAGGCGCACTATGACATG
CGGAGGAACGACGACATTATAAACTTCTCAATGACTTCACTGACCACCTGGCTGAGGAGCCCTATGGG
AACTGTCTCTGAAAATTAACCCAGGAACATAACAAGGAGAAAAACAGACCGGGAAGAGAAGACC
    
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG208092 representing NM_198679

Red=Cloning site Green=Tags(s)

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MGNAIEKQKPLKRSHLYPWKQDSQRSHLSSFTMKLMDKFHSPKIKRTPSKKPKPAEVSVKIPEKPVNKEA
TDRFLPEGYPLPLDLEQQAVEFMSTSAVASRSQRQKNLSWLEEKKEVVSALRYFKTIVDKMAIDKKVLE
MLPGSASKVLEAILPLVQNDPRIQHSSALSSCYSRVYQSLANLIRWSDQVMLEGVNSEDKEMVTTVKGVI
KAVLDGVKELVRLTIEKQGRPSPTSPVKPSSPASKPDGPAELPLTDREVEILNKTTGMSQSTELLPDATD
EEVAPPKPLPGIRVVDNSPPPALPPKKRQSAPSPTRVAVVAPMSRATSGSSLPVGINRQDFDVCYAQR
RLSGGSHSYGGESPRLSPCSSIGKLSKDEQLSSLDRDSGQCSRNTSCETLDHYDPDYEFLLQDL SNADQ
IPQQTAWNLSPLPESLGESESPFLGPPFQLPLGGHPQPDGPLAPGQQTDTPPALPEKRRSAASQTADGS
GCRVSYERHPSQYDNI SGEDLQSTAPIPSVPYAPFAAILPFQHGSSAPVEFVGDFTAPESTGDPEKPPP
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PKQRQLEPPAGKDGHPDPSPAVSGVPGKDSRDGSEAPKSPDALESAQSEEEVDELSLIDHNEIMSRLTL
KQEGDDGPDVRRGGSDILLVHATETDRKDLVLYCEAFLTTYRTFISPEELIKKLQRYEKFSPFADTFKK
RVSKNTFFVLVRVVDLCLVELTEEILKLLMELVFRLVNGELSLARVLRKNILDKVDQKLLRCATSSQ
PLAARGVAARPGTLHDFHSHEIAEQLTLLDAELFYKIEIPEVLLWAKEQNEEKSPNLTFTEHFNMSYW
VRSIIMLQEKADRERLLKFKIKIMKHLRKLNNFNLSYLAILSALDSAPIRRELEWQKQTSGLAEYCTLID
SSSSFRAYRAALSEVEPPCIPYLGILQLDFTFVHLGNPDYIDGKVNFSKRWQQFNILDSMRFCQQAHYDM
RRNDIINFNDFSDHLAEEALWELSLKIKPRNITRRKTDREKT
    
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TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_198679

ORF Size: 3285 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_198679.2](#)

RefSeq Size: 6204 bp

RefSeq ORF: 3288 bp

Locus ID: 2889

UniProt ID: [Q13905](#)

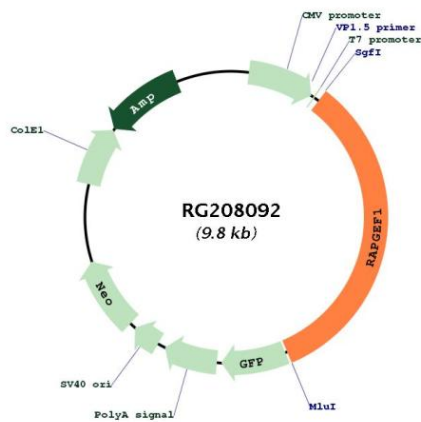
Cytogenetics: 9q34.13

Protein Families: Druggable Genome

Protein Pathways: Focal adhesion, Insulin signaling pathway, Neurotrophin signaling pathway, Renal cell carcinoma

Gene Summary: This gene encodes a human guanine nucleotide exchange factor. It transduces signals from CRK by binding the SH3 domain of CRK, and activating several members of the Ras family of GTPases. This signaling cascade that may be involved in apoptosis, integrin-mediated signal transduction, and cell transformation. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of some variants has not been determined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG208092