

Product datasheet for RC208092

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:	Myc-DDK
Symbol:	GRF2
Synonyms:	C3G; GRF2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208092 representing NM_198679 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCAATGCTATTGAAAAACAGAAGCCCTTGAACGAAGTCATCTGTACCCCTGGAAACAAGACTCTC
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AGTTGTCAGTGCCTGCGCTACTTTAAGACCATTGTGGACAAAATGGCAATTGATAAGAAGTACTGGAG
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GGCTGCAGGGTGTCTACGAGCGGCATCCCTCGCAGTATGACAACATCTCTGGGGAGGACCTGCAGAGCA
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Protein Sequence:

>RC208092 representing NM_198679
 Red=Cloning site Green=Tags(s)

MGNAIEKQKPLKRSHPYWPWKQDSQRSHLSSFTMKLMDKFHSPKIKRTPSKKPKPAEVSVKIPEKPVNKEA
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 KAVLDGVKELVRLTIEKQGRPSPTSPVKPSSPASKPDGPAELPLTDREVEILNKTGMSQSTELLPDATD
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 GCRVSYERHPSQYDNISGEDLQSTAPIPSVPYAPFAAILPFQHGSSAPVEFVGFDTAPESTGDPEKPPP
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 PKQRQLEPPAGKDGHPDPSAVSGVPGKDSRDGSEAPKSPDALESAQSEEEVDELSLIDHNEIMSRLTL
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 PLAARGVAARPGTLHDFHSHEIAEQLTLLDAELFYKIEIPEVLLWAKEQNEEKSPNLTQFTEHFNMSYW
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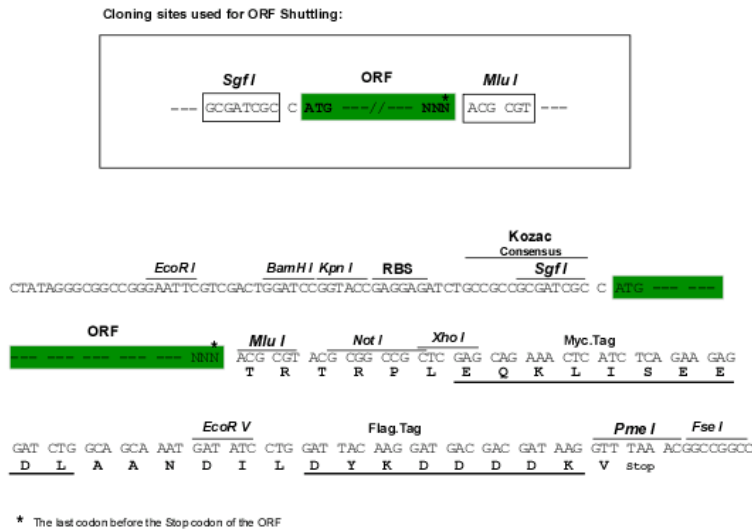
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2928_h07.zip

Restriction Sites: SgfI-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](#)

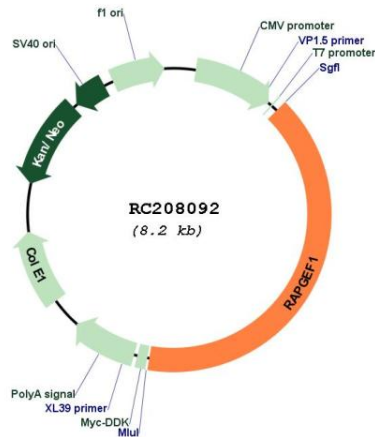
RefSeq Size: 6204 bp

RefSeq ORF: 3288 bp

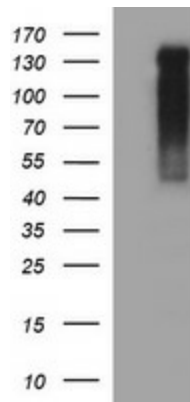
Locus ID: 2889

UniProt ID: [Q13905](#)
Cytogenetics: 9q34.13
Protein Families: Druggable Genome
Protein Pathways: Focal adhesion, Insulin signaling pathway, Neurotrophin signaling pathway, Renal cell carcinoma
MW: 122.6 kDa
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]

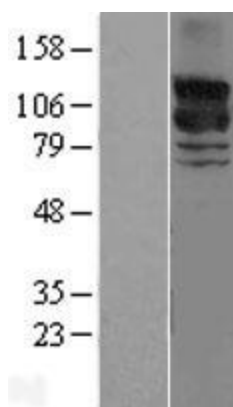
Product images:



Circular map for RC208092



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RAPGEF1 (Cat# RC208092, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RAPGEF1 (Cat# [TA506837]). Positive lysates [LY404802] (100ug) and [LC404802] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY404802]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208092 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).