OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC315151

GRF2 (RAPGEF1) (NM_005312) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: GRF2 (RAPGEF1) (NM_005312) Human Untagged Clone

Tag: Tag Free

Symbol: RAPGEF1

Synonyms: C3G; GRF2

Vector: pCMV6 series

Fully Sequenced ORF:

>NCBI ORF sequence for NM_005312, the custom clone sequence may differ by one or more nucleotides

ATGGACACAGACTCTCAGCGTTCTCATCTCTCTTCCTTCACCATGAAGCTGATGGACAAA
TTCCACTCACCCAAAATCAAGAGAACGCCATCAAAGAAGGGAAAACCAGCTGAGGTGTCC
GTAAAGATTCCAGAGAAGCCTGTGAACAAAGAGGCAACAGACAGATTTCTACCAGAGGGC
TACCCTCTCCCCTTGGATCTGGAGCAGCAGGCAGTAGAATTTATGTCCACCAGTGCTGTG
GCTTCCAGGTCTCAAAGGCAGAAGAACCTGAGCTGGCTGGAGGAGAAAGAGAAGGAAGTT
GTCAGTGCCCTGCGCTACTTTAAGACCATTGTGGACAAAATGGCAATTGATAAGAAGGTA
CTGGAGATGCTTCCAGGGTCAGCCAGCAAGGTGCTGGAGGCCATCTTACCCCTGGTGCAG
AACGATCCTCGAATTCAGCACAGCTCAGCCCTCTCTTCCTGCTATAGCCGAGTGTACCAA
AGCCTCGCCAACCTCATTCGCTGGTCTGACCAAGTGATGCTGGAAGGCGTGAACTCAGAA
GACAAGGAGATGGTGACGACTGTGAAGGGGGTCATCAAGGCTGTGCTGGATGGAGTGAAG
GAGCTGGTCAGGCTCACCATCGAGAAGCAGGGACGTCCGTCTCCGACGAGCCCCGTGAAG
CCCAGTTCCCCTGCCAGCAAGCCTGATGGCCCAGCAGAGCTCCCCCTGACAGACCGCGAG
GTAGAGATCCTAAACAAGACGACTGGGATGTCACAGTCAACTGAGCTCCTCCCAGATGCC
ACGGATGAAGAGGTCGCGCCCCCCAAGCCTCCTCTGCCTGGCATTCGGGTGGTTGATAAT
AGTCCTCCACCAGCATTGCCACCCAAGAAAAGACAGTCGGCGCCGTCCCCTACCCGAGTG
GCTGTGGTGGCCCCCATGAGCCGAGCCACCAGTGGCTCCAGTTTGCCTGTTGGAATCAAT
AGGCAGGATTTTGATGTTGACTGTTACGCACAGAGGCGACTGTCAGGAGGCAGCCACTCA
TATGGTGGAGAGTCGCCCCGCCTCTCCCCCTGCAGCAGCATAGGCAAGCTCAGCAAGTCA
GACGAGCAGCTGTCCTCTCTGGACAGGGACAGTGGGCAGTGCTCCCGGAACACAAGCTGT
GAAACACTAGACCACTATGATCCCGACTATGAATTCCTCCAGCAAGACCTCTCTAACGCA
GACCAGATACCTCAGCAGACGGCCTGGAACCTTAGCCCGTTGCCAGAGTCTTTGGGGGAG
TCTGGGTCTCCATTTCTTGGCCCTCCTTTCCAGCTGCCTCTTGGCGGCCATCCCCAGCCA
GACGGACCTCTGGCCCCAGGGCAGCAGACAGATACGCCACCTGCTCTCCCCGAGAAGAAG
CGCAGGAGCGCAGCCTCCCAGACGGCGGACGGCTCTGGCTGCAGGGTGTCCTACGAGCGG
CATCCCTCGCAGTATGACAACATCTCTGGGGAGGACCTGCAGAGCACAGCCCCGATCCCA
TCCGTCCCCTACGCGCCCTTTGCTGCTATTCTGCCCTTTCAGCATGGAGGTTCCTCAGCC
CCTGTCGAATTTGTGGGTGATTTTACTGCTCCTGAGTCAACCGGTGACCCAGAAAAACCA
CCTCCTCTACCAGAGAAGAAAAACAAACACATGCTGGCCTACATGCAGTTGCTGGAGGAC
TACTCGGAGCCGCAGCCCTCTATGTTCTACCAGACGCCACAGAACGAGCACATCTACCAG

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CAGAAGAACAAGCTCCTCATGGAGGTATACGGCTTCAGCGACTCCTTCAGTGGGGTGGAC
TCCGTGCAGGAGCTGGCCCCGCCGCCCGCCCTACCCCCCAAGCAGCGGCAGCTGGAGCCA
CCGGCTGGGAAAGACGGACATCCCAGAGATCCCTCAGCGGTCAGCGGCGTCCCTGGGAAG
GACAGCAGAGACGGCAGTGAGAGGGCCCCAAAGTCACCAGATGCTCTGGAGTCGGCTCAG
TCGGAGGAGGAAGTGGACGAGCTGTCCCTCATTGACCACAACGAAATTATGTCCAGGCTG
ACGCTCAAGCAGGAGGGTGATGACGGGCCGGACGTCCGCGGAGGATCTGGGGACATCTTA
CTGGTCCATGCTACTGAGACTGACAGGAAAGATTTGGTGTTGTACTGCGAGGCATTCCTG
ACCACCTACAGGACCTTCATCTCCCCAGAGGAGCTCATCAAGAAGCTGCAGTACAGATAT
GAGAAATTCTCTCCCTTTGCCGACACATTCAAGAAGCGCGTCAGCAAGAACACGTTCTTC
GTGCTGGTACGGGTGGTGGATGAGCTCTGCCTGGTGGAGTTGACAGAAGAGATCCTGAAG
CTGCTGATGGAACTGGTCTTCCGCCTGGTGTGCAATGGGGAGCTGAGCCTGGCCCGTGTG
CTCCGGAAGAACATCCTGGACAAGGTGGACCAGAAGAAGCTACTCAGGTGTGCCACCTCC
AGCCAGCCCCTGGCAGCCCGGGGGGTAGCAGCCAGGCCGGGGACCTTGCACGACTTTCAC
AGCCATGAGATAGCGGAGCAGCTAACGCTGCTGGATGCTGAGCTCTTCTATAAAATAGAG
ATTCCTGAGGTTTTGCTTTGGGCAAAAGAGCAGAATGAGGAGAAGAGCCCCAACTTGACC
CAGTTCACGGAGCACTTCAACAACATGTCCTACTGGGTCCGGTCCATAATCATGTTACAG
GAAAAGGCCCAGGACAGGGAACGGCTGCTCTTGAAGTTCATCAAGATCATGAAGCACTTG
CGGAAGCTGAATAACTTCAACTCCTACTTGGCCATCCTCTCTGCCCTGGACTCGGCGCCC
ATCCGCAGGCTGGAGTGGCAGAAGCAGACTTCAGAGGGCCTGGCCGAGTACTGCACACTG
ATCGACAGCTCGTCCTCCTTCCGAGCCTACCGGGCCGCCCTCTCGGAGGTGGAACCGCCG
TGCATCCCGTACCTGGGGCTGATCCTGCAGGACCTGACCTTCGTTCACCTGGGAAACCCA
GACTACATCGACGGGAAAGTGAACTTCTCCAAGCGGTGGCAGCAGTTCAACATCCTCGAC
AGCATGCGCTGCTTCCAGCAGGCGCACTATGACATGCGGAGGAACGACGACATTATAAAC
TTCTTCAATGACTTCAGTGACCACCTGGCTGAGGAGGCCCTATGGGAACTGTCTCTGAAA
ATTAAACCCAGGAACATAACAAGGAGAAAAACAGACCGGGAAGAGAAGACC

Restriction Sites: Please inquire

ACCN: NM_005312

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_005312.2, NP_005303.2

RefSeq Size: 6121 bp

RefSeq ORF:	3234 bp
Locus ID:	2889
UniProt ID:	Q13905
Cytogenetics:	9q34.13
Domains:	RasGEFN, RasGEF
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] Transcript Variant: This variant (1) uses an alternate 5'-terminal exon which results in a distinct 5' UTR and 5' coding region, compared to variant 2. The encoded isoform (a) has a shorter and distinct N-terminus, compared to isoform b.