

Product datasheet for **SC310336**

RASGRF1 (NM_153815) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASGRF1 (NM_153815) Human Untagged Clone
Tag:	Tag Free
Symbol:	RASGRF1
Synonyms:	CDC25; CDC25L; GNRP; GRF1; GRF55; H-GRF55; PP13187; ras-GRF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >SC310336 representing NM_153815.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTACTCGGCCATGTCACCCTTCAGCAAGGCCACGCTGGACACCAGCAAGCTCTATGTGTCCAGCAGC
TTCACCAACAAGATTCAGATGAGGGCGATACGACCCCTGAGAAGCCGAAGACCTTCAGCGCTCAGC
AAGCAGAGCTCAGAAGTCTCCATGAGAGAGGAGTCAGATATTGATCAAAAACCAGAGTGATGATGGTGAT
ACTGAAACATCACCAACTAAATCTCCAACAACACCCAAATCAGTCAAAAACAAAATTCTTCAGAGTTC
CCTACTTTTTCTATAACAATGGAGTCGTATGACCTCCTGTCGTGAACCTGGACAATAACCGCAGTGCC
TTGTGGCGCCCTCTGCCTTTGCCATAGCAACCGCGGGGCAACGAGGGCACCCCAAACAAGGAGAAG
TACCGGAGGATGTCCTTAGCCAGTGCAGGGTTCCCCAGACCAGAGGAATGGAGACAAGGAGTTTGTG
ATCCGCAGAGCAGCCACCAATCGTGTCTTGAACGTGCTCCGCCACTGGGTGTCCAAGCACTCTCAGGAC
TTTGAGACCAACGATGAGCTCAAATGCAAGGTGATCGGCTTCTGGAAGAAGTCATGCACGACCCGGAG
CTCCTGACCCAGGAGCGAAGGCTGCAGCCAACATCATCAGGACTCTGACCCAGGAGGACCCAGGTGAC
AACCAGATCACGCTGGAGGAGATCACGCAGATGGCTGAAGGCGTGAAGGCTGAGCCCTTTGAAAACCAC
TCAGCCCTGGAGATCGCGGAGCAGCTGACCCTGCTAGATCACCTCGTCTTCAAGAAGATTCTTATGAG
GAGTTCTTCGGACAAGGATGGATGAAACTGAAAAGAATGAAAGGACCCCTTATATCATGAAAACCACT
AAGCACTTCAATGACATCAGTAACCTGATTGCTTCAGAAATCATCCGCAATGAGGACATCAACGCCAGG
GTGAGCGCCATCGAGAAGTGGGTGGCCGTAGCTGACATATGCCGCTGCCTCCACAACATAATGCCGTA
CTGGAGATCACCTCGTCCATGAACCGCAGTGCAATCTTCCGGCTCAAAAAGACGTGGCTCAAAGTCTCT
AAGCAGACTAAAGCTTTGATTGATAAGCTCCAAAAGCTTGTGTCATCTGAGGGCAGATTTAAGAATCTC
AGAGAAGCTTGAAAAATTGTGACCCACCCTGTCCCTTACCTGGGGATGTACCTCACCGACCTGGCC
TTCATCGAGGAGGGGACGCCAATTACACGGAAGACGGCCTGGTCAACTTCTCCAAGATGAGGATGATA
TCCCATATTATCCGAGAGATTCCGCAAGTTTCAACAACTGCCTACAAAATAGAGCACCAAGCAAAGGTA
ACGCAATATTTACTGGACCAATCTTTTGTAAATGGATGAAGAAAGCCTCTACGAGTCTTCTCTCCAATA
GAACCAAACTCCCCACTGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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- Restriction Sites:** SgfI-MluI
- Plasmid Map:** □
- ACCN:** NM_153815
- Insert Size:** 1470 bp
- 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_153815.2](#)

RefSeq Size: 4860 bp

RefSeq ORF: 1470 bp

Locus ID: 5923

UniProt ID: [Q13972](#)

Cytogenetics: 15q25.1

Domains: RasGEF

Protein Families: Druggable Genome

Protein Pathways: Focal adhesion, MAPK signaling pathway

MW: 55.5 kDa

Gene Summary: The protein encoded by this gene is a guanine nucleotide exchange factor (GEF) similar to the *Saccharomyces cerevisiae* CDC25 gene product. Functional analysis has demonstrated that this protein stimulates the dissociation of GDP from RAS protein. The studies of the similar gene in mouse suggested that the Ras-GEF activity of this protein in brain can be activated by Ca²⁺ influx, muscarinic receptors, and G protein beta-gamma subunit. Mouse studies also indicated that the Ras-GEF signaling pathway mediated by this protein may be important for long-term memory. Alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Mar 2009]

Transcript Variant: This variant (2) lacks multiple 5' exon, but has an alternate 5' exon, as compared to variant 1. The resulting isoform (2) has a much shorter N-terminus, as compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.