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Product datasheet for SC326642

RASGRF1 (NM_001145648) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: RASGRF1 (NM_001145648) Human Untagged Clone

Tag: Tag Free

Symbol: RASGRF1

Synonyms: CDC25; CDC25L; GNRP; GRF1; GRF55; H-GRF55; PP13187; ras-GRF1

Vector: pCMV6 series

Fully Sequenced ORF:

>NCBI ORF sequence for NM_001145648, the custom clone sequence may differ by one or more nucleotides

ATGCAGAAGGGGATCCGGCTGAATGATGGCCACGTCGCGTCCCTGGGACTGCTGGCGCGC
AAGGACGGCACGCGCAAAGGCTACCTGAGCAAGCGGAGTTCGGACAACACAAAATGGCAA
ACCAAGTGGTTCGCGCTGCTGCAGAACCTGCTCTTCTACTTCGAGAGCGACTCGAGCTCG
CGGCCCTCGGGGCTTTACCTGCTGGAGGGCTGCGTCTGCGACCGCGCGCCCTCCCCCAAG
CCGGCGCTGTCGGCCAAGGAGCCGCTGGAGAAACAGCATTACTTCACGGTGAACTTCAGC
CATGAGAACCAGAAAGCCTTGGAGCTGAGGACAGAGGACGCAAAAGATTGTGACGAATGG
GTGGCAGCCATTGCACATGCCAGCTACAGGACCCTCGCCACAGAGCATGAGGCATTAATG
CAGAAATACCTGCACCTGCTGCAGATCGTGGAGACAGAGAAGACCGTGGCCAAGCAGCTT
CGGCAGCAGATCGAGGATGGGGAGATCGAGATCGAGCGGCTGAAGGCAGAGATCACATCC
CTGCTCAAGGACAATGAGCGCATCCAGTCCACCCAGACTGTCGCCCCCAACGATGAAGAC
AGCGACATCAAGAAAATTAAGAAGGTGCAGAGCTTCCTGCGGGGCTGGCTGTGCCGGCGG
AAGTGGAAGACCATCATCCAGGACTACATCCGGTCACCCCATGCTGACAGCATGCGCAAG
AGGAACCAGGTGGTGTTCAGCATGCTGGAGGCTGAGGCTGAGTACGTGCAGCAGCTGCAC
ATCCTTGTCAACAATTTCCTGCGCCCGCTGCGGATGGCCGCCAGCTCCAAGAAGCCTCCC
ATCACACACGACGACGTCAGCAGCATCTTCCTGAACAGCGAAACCATCATGTTTTTACAT
CAGATCTTTTACCAAGGCCTGAAGGCCCGCATCTCCAGCTGGCCCACGCTGGTCCTGGCT
GACCTATTTGACATCCTGCTGCCCATGCTCAACATCTACCAAGAGTTCGTCCGCAACCAC
CAGTACAGCCTGCAGATCCTGGCCCACTGCAAGCAGAACCGTGACTTCGACAAGCTGCTG
AAGCACTACGAGGCCAAGCCTGACTGCGAGGAGAGGACGCTGGAGACCTTCCTCACCTAC
CCCATGTTCCAGATCCCCAGGTACATCCTGACCCTCCATGAGCTCCTGGCCCACACGCCT
CATGAGCACGTTGAGCGCAACAGCCTGGACTACGCCAAGTCCAAACTGGAGGAGCTGTCC
AGAATAATGCACGATGAAGTAAGTGAGACGGAGAACATCCGGAAAAACCTGGCCATCGAG
CGCATGATCATCGAAGGCTGTGAGATCCTCCTGGACACCAGCCAGACCTTTGTGAGACAA
GGTTCCCTCATTCAGGTGCCCATGTCTGAAAAGGGCAAGATCACCAGGGGGCGCCTGGGG
TCTCTCTCCCTAAAGAAAGAGGGCGAGCGACAGTGCTTCCTGTTTTCTAAGCATCTGATT
ATCTGTACCAGAGGCTCTGGAGGGAAGCTTCACTTGACCAAGAATGGAGTCATATCCCTC
ATTGACTGCACTTTATTGGAGGAGCCAGAAAGCACGGAGGAGGAAGCCAAAGGATCCGGC
CAAGACATAGATCACTTGGATTTTAAAATCGGGGTGGAGCCAAAGGATTCCCCGCCCTTT
ACAGTCATCCTAGTGGCCTCGTCCAGACAGGAGAAGGCAGCGTGGACCAGTGACATCAGC

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CAGTGTGTGGATAACATCCGATGCAATGGGCTCATGATGAACGCATTTGAAGAAAATTCC
AAGGTCACTGTGCCGCAGATGATCAAGTCCGACGCCTCCTTATATTGTGATGATGTTGAC
ATTCGCTTCAGCAAAACCATGAACTCCTGCAAAGTGCTGCAGATCCGCTACGCCAGTGTG
GAGCGGCTGCTGGAGAGGCTGACGGACCTGCGCTTCCTGAGCATCGACTTCCTCAACACC
TTCCTGCACTCCTACCGCGTCTTCACCACCGCCATCGTGGTCCTGGACAAGCTCATTACC
ATCTACAAGAAGCCTATCAGTGCCATTCCTGCCAGGTCGCTGGAGCTCCTGTTTGCCAGT
GGCCAGAACAATAAGCTCCTGTACGGTGAACCCCCCAAGTCCCCGCGCGCCACCCGCAAG
TTCTCCTCGCCGCCACCTCTGTCCATCACCAAGACATCGTCACCGAGCCGCCGGCGGAAG
CTCTCCCTGAACATCCCCATCATCACTGGCGGCAAGGCCCTGGACCTGGCCGCCCTCAGC
TGCAACTCCAATGGCTACACCAGCATGTACTCGGCCATGTCACCCTTCAGCAAGGCCACG
CTGGACACCAGCAAGCTCTATGTGTCCAGCAGCTTCACCAACAAGATTCCAGATGAGGGC
GATACGACCCCTGAGAAGCCCGAAGACCCTTCAGCGCTCAGCAAGCAGAGCTCAGAAGTC
TCCATGAGAGAGGAGTCAGATATTGATCAAAACCAGAGTGATGATGGTGATACTGAAACA
TCACCAACTAAATCTCCAACAACACCCAAATCAGTCAAAAACAAAAATTCTTCAGAGTTC
CCACTCTTTTCCTATAACAATGGAGTCGTCATGACCTCCTGTCGTGAACTGGACAATAAC
CGCAGTGCCTTGTCGGCCGCCTCTGCCTTTGCCATAGCAACCGCCGGGGCCAACGAGGGC
ACCCCAAACAAGGAGAAGTACCGGAGGATGTCCTTAGCCAGTGCAGGGTTTCCCCCAGAC
CAGAGGAATGGAGACAAGGAGTTTGTGATCCGCAGAGCAGCCACCAATCGTGTCTTGAAC
GTGCTCCGCCACTGGGTGTCCAAGCACTCTCAGGACTTTGAGACCAACGATGAGCTCAAA
TGCAAGGTGATCGGCTTCCTGGAAGAAGTCATGCACGACCCGGAGCTCCTGACCCAGGAG
CGGAAGGCTGCAGCCAACATCATCAGGACTCTGACCCAGGAGGACCCAGGTGACAACCAG
ATCACGCTGGAGGAGATCACGCAGATGGCTGAAGGCGTGAAGGCTGAGCCCTTTGAAAAC
CACTCAGCCCTGGAGATCGCGGAGCAGCTGACCCTGCTAGATCACCTCGTCTTCAAGAAG
ATTCCTTATGAGGAGTTCTTCGGACAAGGATGGATGAAACTGGAAAAGAATGAAAGGACC
CCTTATATCATGAAAACCACTAAGCACTTCAATGACATCAGTAACTTGATTGCTTCAGAA
ATCATCCGCAATGAGGACATCAACGCCAGGGTGAGCGCCATCGAGAAGTGGGTGGCCGTA
GCTGACATATGCCGCTGCCTCCACAACTACAATGCCGTACTGGAGATCACCTCGTCCATG
AACCGCAGTGCAATCTTCCGGCTCAAAAAGACGTGGCTCAAAGTCTCTAAGCAGACTAAA
GCTTTGATTGATAAGCTCCAAAAGCTTGTGTCATCTGAGGGCAGATTTAAGAATCTCAGA
GAAGCTCTGAAAAATTGTGACCCACCCTGTGTCCCTTACCTGGGGATGTACCTCACCGAC
CTGGCCTTCATCGAGGAGGGGACGCCCAATTACACGGAAGACGGCCTGGTCAACTTCTCC
AAGATGAGGATGATATCCCATATTATCCGAGAGATTCGCCAGTTTCAACAAACTGCCTAC
AAAATAGAGCACCAAGCAAAGGTAACGCAATATTTACTGGACCAATCTTTTGTAATGGAT
GAAGAAAGCCTCTACGAGTCTTCTCTCCGAATAGAACCAAAACTCCCCACC

Restriction Sites: Please inquire

ACCN: NM_001145648

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_001145648.1, NP_001139120.1

RefSeq Size: 6366 bp

RefSeq ORF: 3774 bp

Locus ID: 5923

Cytogenetics: 15q25.1

Protein Families: Druggable Genome

Protein Pathways: Focal adhesion, MAPK signaling pathway

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 (3) lacks an in-frame coding exon, as compared to variant 1. The resulting isoform (3) lacks an internal segment, 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.