

Product datasheet for **SC315368**

RAPGEF2 (NM_014247) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | RAPGEF2 (NM_014247) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | RAPGEF2 |
| Synonyms: | CNrasGEF; NRAPGEP; nRap GEP; PDZ-GEF1; PDZGEF1; RA-GEF; RA-GEF-1; RAGEF; Rap-GEP |
| Vector: | <u>pCMV6 series</u> |
| Fully Sequenced ORF: | >NCBI ORF sequence for NM_014247, the custom clone sequence may differ by one or more nucleotides |

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ATGAAACCACTAGCAATCCCAGCTAACCATGGAGTTATGGGCCAGCAGGAGAAACACTCA
CTTCCTGCAGATTTACAAAACTGCATCTTACTGACAGTCTCCACCCACAGGTGACCCAC
GTTTCTTCTAGCCATTCCAGGATGTAGTATCACTAGTGATTCTGGGAGCAGCAGTCTTTCT
GATATCTACCAGGCCACAGAAAGCGAGGCTGGTATATGGACCTGAGTGGGTTGCCAGAA
ACAGCAGTGGATTCCGAAGACGACGACGATGAAGAAGACATTGAGAGAGCATCAGATCCT
CTGATGAGCAGGGACATTGTGAGAGACTGCCTAGAGAAGGACCCAATTGACCGGACAGAT
GATGACATTGAACAACCTTTGGAATTTATGCACCAGTTGCCTGCTTTTGCCAATATGACA
ATGTCAGTGAGGGGAGAACTCTGTGCTGTGATGGTGTTCGAGTGGTGGAAAGAGCAGGG
ACCATAGTGTTAAATGATGGTGAAGAGCTGGACTCCTGGTCAGTGATTCTCAATGGATCT
GTGGAAGTGACTTATCCAGATGGAAAAGCAGAAATACTGTGCATGGGAAATAGTTTTGGT
GTCTCTCTACCATGGACAAAGAATACATGAAAGGAGTGATGAGAAACAAAGTGGATGAC
TGCCAGTTTGTCTGCATAGCCCAGCAAGATTACTGCCGTATTCTCAATCAAGTAGAAAAG
AACATGCAAAAAGTTGAAGAGGAAGGAGAGATTGTTATGGTGAAGAACAACCCGAGAACTT
GATCGAACTGGAACAAGAAAGGGACACATTGTCATCAAGGTACCTCAGAAAGGTTAACA
ATGCATTTGGTGAAGAGCATTCCAGTAGTAGTCAACATTCATAGAAGACTTTCTGTTG
ACCTATAGGACTTTTCTTCTAGCCCAATGGAAGTGGGCAAAAAGTTATTGGAGTGGTTT
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GCAAAAAGAAGATTGATGACGTTAACAAAACCATCCCGAGAAGCTCCTTTGCCTTTTATC
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CGGATCAGTATCTTGCCACAGAAACCATACAATGATATTGGGATTGGTCACTCAAGAT
GACAGCATAGTAGGATTAAGGCAGACAAAGCACATCCCAACTGCATTGCCTGTCACTGGA

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ACCTTATCATCCAGTAATCCTGATTTATTGCAGTCACATCATCGCATTTTACTTACAGT
 GCTACTCCTGACTTGCCAGATCAAGTGCTAAGGGTTTTTAAGGCTGATCAGCAAAGCCGC
 TACATCATGATCAGTAAGGACTACAGCAAAGGAAGTGGTCATTACAGGCTATCAGGGAG
 TTTGCTGTACTGCCACCCCGGATCAATATTTACTATGTGAGGTCTCTGTACACCTGAG
 GGAGTAATCAAACAAAGAAGACTTCCAGATCAGCTTTCCAAACTTGCAGACAGAATACAA
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 CTTTCCAATTTGGAGCTAGAAAATGGACGAGGAGAGTCTTCAGACATTATCTCTGCAGTGT
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 ACCTCTCCAGTAGCTCCAAGGGCAGGGTCACAACAGAAAGCTCAGTCCCTGCCACAGCCC
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 AAACAGGCTGAAGATAACAATATCAAATGCATCTTCGCAGCTTTCTCTCCTACTTTCT
 CCACAGAGTTCTCAAGGAAAGGCTATACTTTGGCTCCCAGTGGTACTGTGGATAATTTT
 TCAGATTCTGGTCACAGTGAATTTCTTACGATCCAGTATTGTTAGCAATTCGTCTTTT
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 ATTTCTTCTCAAGCACAGAGGAACCTTTCCAGGATCAGGGGGATCGCGCGTCACTTGAT
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 CAGACGATCCAGCACCAGAGAAGCTGGGAGACTTCCATTGGGCATACTCACTTTGAT
 TATTCAGGGGATCCTGCAGGTTTATGGGCATCAAGCAGCCATATGGACCAAAATATGTTT
 TCTGATCATAGCAAAAAGTATAACAGGCAAAAATCAAAGTAGAGAGAGCCTTGAACAAGCC
 CAGTCCCGAGCAAGCTGGGCGTCTTCCACAGGTTACTGGGGAGAAGACTCAGAAGGTGAC
 ACAGGCACAATAAAGCGGAGGGGTGAAAGGATGTTTCCATTGAAGCCGAAAGCAGTAGC
 CTAACGTCTGTGACTACGGAAGAAACCAAGCCTGTCCCATGCCTGCCACATAGCTGTG
 GCATCAAGTACTACAAAGGGGCTCATTGCACGAAAGGAGGGCAGGTATCGAGAGCCCCG
 CCCACCCCTCCCGGTACATTGGAATTTCCATTACTGACTTTCCAGAAGGGCACTCCCAT
 CCAGCCAGGAAACCGCCGACTACAACGTGGCCCTTCAGAGATCGCGGATGGTCCGACGA
 TCCTCCGACACAGCTGGGCTTCATCCGTACAGCAGCCACATGGGCATCCACCAGCAGC
 AGGCCTGTGAACAAACCTCAGTGGCATAAACCGAACGAGTCTGACCCGCGCTCGCCCT
 TATCAGTCCCAAGGGTTTTCCACCGAGGAGGATGAAGATGAACAAGTTTCTGCTGTT

Restriction Sites:

Please inquire

ACCN:

NM_014247

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| 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: | <ol style="list-style-type: none">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: | <u>NM_014247.1</u> , <u>NP_055062.1</u> |
| RefSeq Size: | 6568 bp |
| RefSeq ORF: | 4500 bp |
| Locus ID: | 9693 |
| UniProt ID: | <u>Q9Y4G8</u> |
| Cytogenetics: | 4q32.1 |
| Domains: | RA, cNMP, RasGEFN, PDZ, RasGEF |
| Protein Pathways: | MAPK signaling pathway |
| Gene Summary: | Members of the RAS (see HRAS; MIM 190020) subfamily of GTPases function in signal transduction as GTP/GDP-regulated switches that cycle between inactive GDP- and active GTP-bound states. Guanine nucleotide exchange factors (GEFs), such as RAPGEF2, serve as RAS activators by promoting acquisition of GTP to maintain the active GTP-bound state and are the key link between cell surface receptors and RAS activation (Rebhun et al., 2000 [PubMed 10934204]).[supplied by OMIM, Mar 2008] |