

## Product datasheet for **SC314846**

### **RASA1 (NM\_022650) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RASA1 (NM_022650) Human Untagged Clone
Tag:	Tag Free
Symbol:	RASA1
Synonyms:	CM-AVM; CMAVM; CMAVM1; GAP; p120; p120GAP; p120RASGAP; PKWS; RASA; RASGAP
Vector:	<u><a href="#">pCMV6 series</a></u>



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_022650, the custom clone sequence may differ by one or more nucleotides

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ATGAAGGGGTGGTATCACGGAAACTTGACAGAACGATAGCAGAAGAACGCCTCAGGCAG
GCAGGGAAGTCTGGCAGTTATCTTATAAGAGAGAGTGATCGGAGGCCAGGGTCCTTTGTA
CTTTCAATTTCTTAGCCAGATGAATGTTGTCAACCATTTTAGGATTATTGCTATGTGTGGA
GATTACTACATTGGTGGAAAGACGTTTTTCTTACTGTGCAGACCTAATAGGTTATTACAGT
CATGTTTTCTGTTGCTTAAAGGAGAAAAATTACTTTACCCAGTTGCACCACCAGAGCCA
GTAGAAGATAGAAGGCGGTACGAGCTATTCTACCTTACACAAAAGTACCAGACACTGAT
GAAATAAGTTTCTTAAAAGGAGATATGTTCAATGTTTATAATGAATTAGAAGATGGATGG
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GAGGTGGGCCGGGAAGAAGATCCACATGAAGGAAAAATATGGTCCATGGGAAGATTTCC
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CCCTCAGATAATACTCCTGGCGATTATCACTTTATTTCCGGACCAATGAAAATATTCAG
CGATTTAAAATATGTCCAACGCCAAACAATCAGTTTATGATGGGAGGCCGGTATTATAAC
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GAAATCTATAATACCATCCGTCGTAACAAAGGATGCCTTTTAAAAAACATTGTTAAG
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GCAGGAGAACTCCAGAACAGCAGAGGATTGGATGAAAGGTCTGCAGGCATTTTGAAT
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ATAAGCATGGAAGATGAAGCCACTACCCTATTTGAGCCACAACACTTGAAGCACCTTG
ATGGAGCAGTATATGAAAGCCACTGCTACACAGTTTGTTCATCATGCTTTGAAAGACTCT
ATTTTAAAGATAATGAAAGCAAGCAGTCTTGTGAGTTAAGTCCATCAAAGTTAGAAAA
AATGAAGATGTGAACACTAATTTAACACACCTATTGAACATACTTTAGAGCTTGTGGAG
AAAATATTCATGGCTTCCAGAAACTTCCACCGACATTGAGATATATTTATGGGTGTTTA
CAGAAATCTGTTCCAGCATAAGTGGCCTACAAATACCACCATGAGAACAAGAGTTGTTAGT
GGTTTTGTTTTTCTCGACTCATCTGCTGCCATCCTGAATCCACGGATGTTCAATATC
ATCTCAGATTCTCATCTCCTATTGCTGCAAGAACACTGATATTAGTGGCTAAATCTGTG
CAGAACTTAGCAATCTTGTGGAATTTGGAGCTAAGGAGCCCTACATGGAAGGTGCAAT
CCATTCATCAAAAGCAACAAACATCGTATGATCATGTTTTTAGATGAACTTGGGAATGTA
CCTGAACTTCCGGACACTACAGAGCATTCTAGAACGGACCTGTCCCGTATTTAGCAGCA
TTGCATGAGATTTGCGTGGCTCATTAGATGAACTTGAACGCTCAGTAATGAGCGTGGT
GCACAGCAGCAGTATTGAAAAGCTTCTGGCTATAACAGAACTGCTTCAACAAAAACAA
AACCAGTATACAAAACCAATGATGTCAGG
    
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**Restriction Sites:** Please inquire  
**ACCN:** NM\_022650

<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	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.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_022650.1</a> , <a href="#">NP_072179.1</a>
<b>RefSeq Size:</b>	3757 bp
<b>RefSeq ORF:</b>	2613 bp
<b>Locus ID:</b>	5921
<b>UniProt ID:</b>	<a href="#">P20936</a>
<b>Cytogenetics:</b>	5q14.3
<b>Domains:</b>	C2, SH2, SH3, PH, RasGAP, VPS9
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Axon guidance, MAPK signaling pathway
<b>Gene Summary:</b>	<p>The protein encoded by this gene is located in the cytoplasm and is part of the GAP1 family of GTPase-activating proteins. The gene product stimulates the GTPase activity of normal RAS p21 but not its oncogenic counterpart. Acting as a suppressor of RAS function, the protein enhances the weak intrinsic GTPase activity of RAS proteins resulting in the inactive GDP-bound form of RAS, thereby allowing control of cellular proliferation and differentiation. Mutations leading to changes in the binding sites of either protein are associated with basal cell carcinomas. Mutations also have been associated with hereditary capillary malformations (CM) with or without arteriovenous malformations (AVM) and Parkes Weber syndrome. Alternative splicing results in two isoforms where the shorter isoform, lacking the N-terminal hydrophobic region but retaining the same activity, appears to be abundantly expressed in placental but not adult tissues. [provided by RefSeq, May 2012]</p> <p>Transcript Variant: This variant (2) includes an alternatively spliced exon in the 5' portion of the transcript, allowing for translation from an alternative initiation codon and resulting in the shorter isoform (2) which is missing the hydrophobic amino terminus found in isoform 1.</p>