

Product datasheet for SC118332

RASA1 (NM_002890) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASA1 (NM_002890) Human Untagged Clone
Tag:	Tag Free
Symbol:	RASA1
Synonyms:	CM-AVM; CMAVM; CMAVM1; GAP; p120; p120GAP; p120RASGAP; PKWS; RASA; RASGAP
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118332 sequence for NM_002890 edited (data generated by NextGen Sequencing)

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ATGATGGCGCCGAGGCCGCGAGTGTGAGGAGGGCGCCCGTAACAGCCGGAGCTGGAGGA
GGCGGCGCGGCAGCGGGCTCCAGTGCCTATCCCGCAGTGTGTCGGGTGAAGATACCCGCG
GCCCTGCCTGTGGCAGCCGCCCTATCCTGGGCTGGTGGAGACCGGAGTGGCTGGAAC
CTGGGTGGCGGAGCCGCTTTGGGGTCTAGGAGCCGGGTCTGTGGCAGGGGCA
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ACTTCGTTGCTTGTGACTCTCGGGCCAGCGGGGTTTTCCCTCTGCCCTCCC
CCTTACCTGCCCTTTGGGGCGGGCCCTGGGACAGTGGACGAAGGTGACTCTCTGGAT
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CTTCTGAAAAAGGCCAAAGGAAAACGTTGAAAAATTTATATTTTATCTTAGAGGGTAGT

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GATGCCCAACTTATTTATTTTGAAGCGAAAAACGAGCTACCAAACCAAAAGGATTAATA
 GATCTCAGTGTATGTTCTGTCTATGTCGTTTCATGATAGTCTCTTTGGCAGGCCAACTGT
 TTTTCAGATAGTAGTTCAGCACTTTAGTGAAGAATTACATCTTTTACTTTGCAGGAGAA
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 CACGTATTGAAAAGCTTCTGGCTATAACAGAAGCTGCTTCAACAAAAACAAAACAGTAT
 ACAAACCAATGATGTCAGGTAG

Clone variation with respect to NM_002890.2

**5' Read Nucleotide
 Sequence:**

>OriGene 5' read for NM_002890 unedited
 CAGAATTTTGTAAACGACTCACTATAGGGGCGGCCGGAATTCGCACGAGGGGCGCGGC
 GGCGGGCTCTCTCTTTTGTGTTGTTTCTCAGCCTGGGGAGCTGAAGGGGAGACGCGT
 CTGGGTGGGGCTGCTCGGAGCCCGGGCTGGTGGCCCTGGGGCTCCCGGGCGGGCAGGG
 TAGGGCAGAGTAGAGCGGGCTTCAACATGATGGCGCCGAGGCCGGCAGTGAGGAGGGCG
 GCCCGGTAAACAGCCGAGCTGGAGGAGGGCGCGCGCAGCGGGCTCCAGTGCCTATCCCG
 CAGTGTGTGGGTGAAGATACCCGCGGCCCTGCCTGTGGCAGCCGCCCTATCCTGGGC
 TGGTGGAGACCGAGTGGCTGGAACCTGCGGTGGCGGAGCCGCTTTGGGGTCAGAGTTCC
 TAGGAGCCGGGTCTGTGGCAGGGGCACTGGGGGAGCTGGACTGACAGGGGGAGGTAAGT
 CTGCTGGCGTAGCTGGTGTCTGCTGGCGTGGCCGGTGTCTGTTGCTGGACCTAGTG
 GAGACATGGCTCTACCAAACCTGCCACTTCGTTGCTTGTGAGACTCTCGGGCCAGGGC
 GCGGTTTTCCCTCTGCCCCCTCCCCCTTACCTGCCCTTTGGGGGCGGGCCTCGGGA
 CAGTGGACGAAGGTGACTCTCTGGATGGACCAGAATACGAGGAGGAAGAGGTGGCCATAC
 CGTTGACCGCTCCTCAAACCTAACAGTGGTATCACGAAAACTTGACAGAACGATAGCAG
 AAGAACGCCTCANGCAGGCAGGGAAGTCTGGCAGTTATCTTATAAGAGAGAGTGATCGGG
 AGCCAGGTCTTTGACTTTTCTTTCTAGCCAGATGAATGGTGTCAACCAATTTTAGGAT
 ATTGCTATGTGTGGAGATACTACATGGGTGGAAGACGNTNTC

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002890 unedited GCTATGGACCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTGTGCAAGATAT CCCTTGGTTTTATTTAACTTAACTTTGTGAATACTTCACAAAAATACACATACAGAAG TAAATAAACTATACAGTTGAATAAATATCCAGCAGATACAACAAGTAGTCAGAAGTTC AAAGATGGATAAGTTAGGCAGCTGATGAGGTTGTCTGCATAATCAAAGGGGTAGCACAAA TAATGAACAAATAACTTTAACAAAAGCATTCTAGTTAACATAAAAGAAATTGGTAGTCT ATAAAATGGTTGAATGGTAACATGCATTGATCAATACAACAACCAATAATATTTACTGA ATTCAAAATATTTACTTGTAAACATTTAACAAAGCATTATGAGATCTAAATACAGTCTTT GACAATTTCAACAAAATAAGTCGTATGTTTAAAAAATAAAGCTGATGAGCAATAGATCAT TCTATATATTTTCTTTCAACAGTTCAGCAAGAGAAAATAGCAGAGTATTTTTTAAAAGTA TACAGCAAAGATTGTTCTATTATAATGACAACTCTGGAACTGTAATACAAAATATC ATTGAACAGTCAAATGGTCATATTCCTAATCAGGAAGTAGTTACAGTAAGAACAGTCTGC AATCCAGTTATACACAATTGTAATAAGAATGTGTTTCTTGTGAGNTGATTTTCATAGTTCT TTCTCTAAGACAGCAAACCTGGCACTGGGTTGACTGAAATATATTTTGAAGGTCGAGA ATCCGAAACAGTCTAGCATTTTCGTTTGGGAAAGGGCCTGACACCAGCTAAAAGGTGTTA AGATGAGTCCTGGGAATAGGAAATTTCTGCCAGAAGCTACAAGGTGCTCCAAGTTATAC CACCAATTTGGGATTTGTTGCAAGTCACTCCTGATGGGGAAAGGGCTTTTTGGGAGACA GGGAATAAC
Restriction Sites:	NotI-NotI
ACCN:	NM_002890
Insert Size:	4230 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).
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_002890.1, NP_002881.1</u>
RefSeq Size:	4307 bp
RefSeq ORF:	3144 bp
Locus ID:	5921
UniProt ID:	<u>P20936</u>
Cytogenetics:	5q14.3
Domains:	C2, SH2, SH3, PH, RasGAP

Protein Families:	Druggable Genome
Protein Pathways:	Axon guidance, MAPK signaling pathway
Gene Summary:	<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 (1) lacks the alternatively spliced insert found in variant 2, resulting in translation of the longer isoform (1).</p>