

Product datasheet for **RC214699**

RASA1 (NM_022650) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASA1 (NM_022650) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RASA1
Synonyms:	CM-AVM; CMAVM; CMAVM1; GAP; p120; p120GAP; p120RASGAP; PKWS; RASA; RASGAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214699 representing NM_022650
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGGGGTGGTATCACGGAAACTTGACAGAACGATAGCAGAAGAACGCCTCAGGCAGGCAGGGAAGT
 CTGGCAGTTATCTTATAAGAGAGAGTGATCGGAGGCCAGGGTCCTTTGACTTTTCTTTAGCCAGAT
 GAATGTTGTCAACCATTTTAGGATTATTGCTATGTGTGGAGATTACTACATTGGTGGAAAGACGTTTTTCT
 TCACTGTCAGACCTAATAGGTTATTACAGTCATGTTTCTGTTTGCTTAAAGGAGAAAAATTACTTTACC
 CAGTTGCACCACCAGAGCCAGTAGAAGATAGAAGGCGTGTACGAGCTATTCTACCTTACACAAAAGTACC
 AGACACTGATGAAATAAGTTTCTTAAAAGGAGATATGTTCAATTGTTCAATGAATTAGAAGATGGATGG
 ATGTGGGTTACAAATTTAAGAACAGATGAACAAGGCCTATTGTTGAAGACCTAGTAGAAGAGGTGGGCC
 GGGAGAAGATCCACATGAAGGAAAAATATGGTCCATGGGAAGATTTCAAACAGGAAGCTTATAATTT
 ACTAATGACAGTTGGTCAAGTCTGCAGTTTTCTGTGAGGCCCTCAGATAAATACTCTGGCGATTATTCA
 CTTTATTTCCGGACCAATGAAAAATTTACAGCGATTTAAAAATATGTCCAACGCCAAACAATCAGTTTATGA
 TGGGAGGCCGGTATTATAACAGCATTGGGGACATCATAGATCACTATCGAAAAGAACAGATTGTTGAAGG
 ATATTATCTTAAGGAACCTGTACCAATGCAGGATCAAGAACAAGTACTCAATGACACAGTGGATGGCAAG
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 TGCTCAGTCCCATATACCATAAAAGGTATTGAACCAGGGTCCCTGCGTGTTCGAGCAGATACTCTAT
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 GTCTATGCTTTATCACATGTATGTGGACAAGACCGAACACTACTGGCCAGCATCCTACTGAGGATTTTTTC
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 CAAAAACCAATGATGTCAGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214699 representing NM_022650
 Red=Cloning site Green=Tags(s)

MKGWYHGKLDRTIAEERLRQAGKSGSYL IRESDRRPGSFVLSFLSQMNVNHFRIIAMCGDYYIGRRFS
 SLSDLIGYYSHVSCLLKGEKLLYPVAPPEPVEDRRRVRAILPYTKVPDTEISFLKGMFIVHNELEDGW
 MWVTNLRDTEQGLIVEDLVEEVGREEDPHEGKIWFHGKISKQEAYNLLMTVGQVCSFLVRPSDNTPGDYS
 LYFRTNENIQRFKICPTPNNQFMGGRYNSIGDIIIDHYRKEQIVEGYLKEPVPMQDQEQLNDTVDGK
 EIYNTIRRKTDAFYKNIYKKGYLLKKGKGRWKNLYF ILEGSDAQLIYFESEKRATKPKGLIDL SVCSV
 YVHDSLFGRPNCQIVVQHFSEEHYIFYFAGETPEQAEDWMKGLQAFCNLRKSSPGTSSNKRLRQVSSLV
 LHIEEAHKLPVKHFTNPYCNIYLSVQVAKTHAREGQNPVWSEEFVDDLPPDINRFEITLSNKTKKSKD
 PDILFMRQLSRLQKGHATDEWFLSSHIPKGIPEGSLRVRARYSMEKIMPEEEYSEFKELILQKELHV
 VYALSHVCGQDRLLASILLRIFLHEKLESLLLCTLNDREISMEDEATTLFRATTLASTLMEQYMKATAT
 QFVHALKDSILKIMESKQSCELSPSKLEKNEDVNTNLTHLLNILSELVEKIFMASEILPPTLRYIYGCL
 QKSVQHKWPTNTTMRTRVVS GFVFLRLICPAILNPRMFNIISDSPAIAARTLILVAKSVQNLANLVEFG
 AKEPYMEGVNPFIKSNKHRMIMFLDELGNVPELPDTTEHSRTDL SRDLAALHEICVAHSDELRTL SNERG
 AQQHVLKLLAITELLQKQKQNYTKTNDVR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

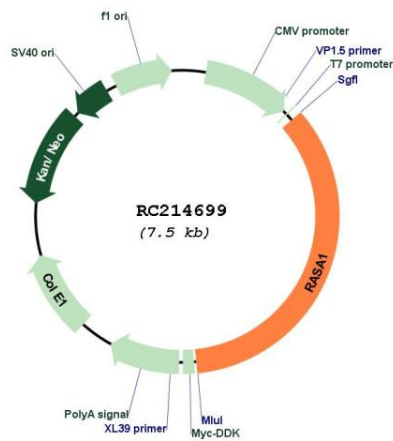
Cloning Scheme:



ACCN:	NM_022650
ORF Size:	2610 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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:	NM_022650.3
RefSeq Size:	3796 bp
RefSeq ORF:	2613 bp
Locus ID:	5921
UniProt ID:	P20936
Cytogenetics:	5q14.3
Domains:	C2, SH2, SH3, PH, RasGAP, VPS9
Protein Families:	Druggable Genome
Protein Pathways:	Axon guidance, MAPK signaling pathway
MW:	100.4 kDa

Gene Summary:

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]

Product images:


Circular map for RC214699