

## Product datasheet for **SC116045**

### **RASGAP (RASA2) (NM\_006506) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RASGAP (RASA2) (NM_006506) Human Untagged Clone
Tag:	Tag Free
Symbol:	RASGAP
Synonyms:	GAP1M
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

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>OriGene ORF sequence for NM_006506 edited
ATGGCGGCGGCGGCGCCTGCTGCTGCGGCGGCTTCTCCGAGGCGCCAGCGGCGAGTGGC
ACTGCAGAGCCCGAGGCCGGGGACCAGGACAGTCGCGAGGTTTCGAGTGTTCAGAGCCTG
CGGGGCAAGATCTGTGAAGCAAAAATTTATTGCCATATCTTGGACCCCAAAAATGAGA
GATTGTTTCTGTACCATAAATTTGGACCAGGAAGAAGTTTATCGTACCCAAGTTGTGGAA
AAATCTTTAAGCCATTTTTTCAGTGAAGAATTTTACTTTGAGATTCCAAGAACTTTCCAG
TATTTGCTTTTCTATGTTTTATGATAAGAATGTTTTACAAAGAGATCTCCGTATAGGAAAA
GTAGCCATCAAAAAGAAGACTTGTGTAATCACAGTGGCAAAGAACTTGGTTTTTCATTA
CAGCCTGTTGACTCCAATTCAGAGGTTCCAGGTAAGTTTACCTTGAATTAAGTGAAT
GAACTGATAACGGAGAATGGAAGTGTATGCCAGCAGCTTGTGTACACATCAAGGCATGC
CATGGGTTGCCTCTCATAAATGGCCAAAGCTGTGACCCTTATGCAACAGTTTCTCTAGTG
GGCCCTTCTAGGAATGACCAAAAAGAAGACAAAAGTAAAGAAGAAAAACAAGCAATCCGCAG
TTTTAATGAAATCTTTTATTTGAGGTAACCAGATCCAGTAGTTACACCAGAAAGTCCAG
TTCCAGGTAGAAGAGGAGACATTGAAAAGCTAGAAATCAGGATCGACTTGTGGAACAAT
GGAACCTAGTCCAAGATTTTTCTAGGTGAGATTAAGTTTCCGTGAACGTATTAAGA
ACTGATTCCTCTCATCAAGCCTGGTACTTGTACAGCCAAGAGACAATGGAACAAGTCA
TCCAAAACCTGATGACCTGGGGTCTCTTCGATTAATATATGTTATACAGAAGACTACGTG
CTTCCTTCAGAGTACTATGGTCTTTGAAAACCTTGTGCTAAAAATCACCAGATGTTCAA
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GTTTTGCCCTTGTACGACTGCTGCTGCACCATGATAAATTTGTTCTTTTGGCACTGCT
GTGGCTGAATTAGACTTGAAGGATACACAAGATGCAAAACAATTTTTAGAGGAAATTC
CTGGCTACCCGATGTCTGGATGAGATGATGAAAATAGTGGGAGGGCACTACCTGAAAGTA
CATTAAAACTATTCTTGATGAGATATGTGACTCCTCAAAATCCTGTGAAATCGATCCT
ATTAATTTGAAAGAGGGAGATAATGTAGAAAATAATAAGGAGAATCTGCGCTACTATGTA
GACAAGTTATTCAATACAATTGTAATCAAGTATGAGCTGCCCACTGTAATGTGTGAT
ATCTTTTATTCTTAAGGCAGATGGCTACTCAGAGATTTCTAATGACCCTCATGTTTCAG
TATTCTGCAGTGAGCAGCTTTGTATTTCTTCGTTTCTTTGCTGTAGCCGTAGTACACCT
CATACTTTTCATTTGCGACCTCATCATCCAGATGCACAGACAATTAGAACATTAACCTCTC
ATCTCAAAAACATACAAAACCTTTGGGAAGCTGGGGAGTCTGTCCAAAAGCAAGTCAAGT
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GCAGTTAAAAAGTTCTTGGATGAAATTTTCACTACTGAAACTAAAGAGTCCAGTGGTACG
AGTGAGCCTGTGCACCTGAAAGAAGGTGAGATGTATAAAAGAGCTCAAGGAAGAAGTCCG
ATTGAAAAAAGAATTTTAAAGAACGATGGTTCTGCTTAACAAGCAGAGAGCTCACCTAC
CACAAACAGCCAGGCAAAGATGCAATCTACACAATCCCAGTAAAAAACATTCTTGCTGTG
GAAAAACTGGAAGAGAGCTCTTTCAACAAGAAAAATATGTTCCAAGTAATACATACGGAG
AAACCACTCTATGTCCAGGCAAATAACTGTGTAGAAGCTAATGAATGGATAGACGTACTC
TGCAGGGTGAGCCGATGCAATCAAAACAGGCTCAGTTTTTATCATCCCTCTGTGTATCTG
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ACTGCAGGTGTCCTGTCAGACATCCAAATAGATATTGATGAAGACAGAGAAACAGAAAGA
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ACTATTGCAGTCTATCAAGGACCACAGAAAGAGCCTGATGATTATTCTAAGTTTGAATC
GAGGATTCTGTAACAACCTTTAAGACAATTCAGCAAAATAAAAAGCATAATTGAGAAGCTG
GATGAACCTCATGAAAAATATAGGAAGAAAAGATCCAGTAGTCAAAAATATGGGAGCAAG
GAAAATCCAATTGTTGGGAAAGCATCTTAG
    
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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_006506 unedited AATTGTTGCAATTTTGGTATACGACTTCACTATAGGGCGGCCGCGATTCCGGCACCAGGGC AGGGCTGCGGCACGGGCCGGCGGCACCATGGCGGCGGCGCCTGCTGCTGCGGCGGC TTCTTCCGAGGCGCCAGCGGCGAGTGCAGACTGCAGAGCCCGAGGCCGGGGACCAGGACAG TCGCGAGGTTTCGAGTGTTCAGAGCCTGCGGGCAAGATCTGTGAAGCAAAAATTTATT GCCATATCTTGGACCCCAAAAATGAGAGATTGTTTCTGTACCATAAAATTTGGACCAGGA AGAAGTTTATCGTACCCAAGTTGTGAAAAATCTTTAAGCCCATTTTTTCAGTGAAGAATT TTACTTTGAGATTCCAAGAACTTTCCAGTATTTGTCTTTCTATGTTTATGATAAGAATGT TTTACAAAGAGATCTCCGTATAGGAAAAGTAGCCATCAAAAAAGAAGACTTGTGTAAATCA CAGTGGCAAAGAACTTGGTTTTTCATTACAGCCTGTTGACTCCAATTCAGAGGTTTCAGGG TAAAGTTCACCTTGAATTAAGTGAATGAACTGATAACGGAGAATGAACTGTATGCCA GCAGCTTGTGTACACATCAAGGCATGCCATGGGTTGCCTCTCATAAATGGCCAAAGCTG TGACCCTTATGCAACAGTTTCTCTAGTGGGCCCTTCTAGGAATGACCAAAAAGAAGACCAN AGTAAAGAAGAAAACAAGCCATCCGAGTTTAATGAAATCTTTATTTTGGAGGTACCAG ATCCAGTAGTTACACCAGAAAGTCCAGTCCAGGTAGAAAGAGGAGGACATTTGAAAGC TANGAATCAGGATCGACTTGTGGGGACATGGAACCCCTAGTCCAGATGTTTTCTAGGGT GAGATTAGGGTCTGTGAACGTATTAGAACT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_006506
<b>Insert Size:</b>	3070 bp
<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>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>	<u><a href="#">NM_006506.2</a></u> , <u><a href="#">NP_006497.2</a></u>
<b>RefSeq Size:</b>	2592 bp
<b>RefSeq ORF:</b>	2550 bp
<b>Locus ID:</b>	5922
<b>UniProt ID:</b>	<u><a href="#">Q15283</a></u>
<b>Cytogenetics:</b>	3q23
<b>Domains:</b>	C2, BTK, PH, RasGAP
<b>Protein Pathways:</b>	MAPK signaling pathway

**Gene Summary:**

The protein encoded by this gene is member 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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014]

Transcript Variant: This variant (3) lacks an in-frame exon in the 3' coding region, compared to variant 1. The encoded isoform (3) is shorter compared to isoform 1.