

## Product datasheet for **RC210812**

### **RASAL1 (NM\_004658) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RASAL1 (NM_004658) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RASAL1
Synonyms:	RASAL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC210812 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCAAGAGCAGCTCCCTGAATGTTCCGCTGGTGGAGGGCCGCGCGCTGCCTGCCAAGGACGTGTCTG  
 GGAGCAGCGACCCCTACTGCCTAGTGAAAGTGGACGACGAGGTGGTGGCCAGGACAGCTACTGTCTGGAG  
 GAGCCTGGGCCCTTCTGGGGGAGGAGTACACGGTGCACCTGCCTCTGGATTTCCACCAGCTGGCCTTC  
 TACGTGCTGGATGAGGACACTGTCGGGCACGACATCATCGGCAAGATCTCGTGAGCAGGGAGGCGA  
 TTACAGCCGACCCCGAGGGATTGACAGCTGGATTAACCTGAGCCGAGTGGACCCAGATGCAGAAGTGCA  
 GGGTGAGATCTGCCTGTCAGTGCAGATGCTGGAGGATGGGAGGGCCGCTGCCTTCGCTGCCATGTGCTT  
 CACGCCAGGGACCTGGCTCCCAGAGACATCTTGGCACATCTGACCCATTTGCACGTGTGTTTTGGGGCA  
 GCCAGAGCTTGGAGACCTCAACCATCAAGAAGACTCGCTTCCCGACTGGGATGAAGTGTGGAGCTGCC  
 GGAGATGCCAGGTGCCCGTCCCCTGCGGGTGGAGCTCTGGGACTGGGACATGGTGGGCAAGAATGAC  
 TTCTTGGGCATGGTGGAGTTCTCTCAAAGACCCCTCCAGCAGAAGCCACCTAAAGGCTGGTTCGCCCTCC  
 TGCCCTTTCCAGAGCCGAGGAGGATTCTGGGGGAACCTGGGTGCCCTGCGAGTGAAGGTACGCCCTGAT  
 TGAGGACCGCGTCTGCCTCCCAGTGCTACCAGCCTCTCATGGAGCTGCTCATGGAGTCTGTGCAGGGG  
 CCAGCAGAGGAGGACACTGCTAGCCCTTGCTTTGCTGGAAGAGCTGACCTTGGGGGACTGCCGCCAGG  
 ACCTTGCCACCAAGCTGGTGAACCTCTTCTTGGCCGGGACTGGCTGGGCATTTCTGGACTATCTCAC  
 CCGGCGTGAGGTGGCTCGGACCATGGACCCCAACCCCTCTTCCGTTCTAACTCCCTGGCATCCAAGTGC  
 ATGGAACAGTTTATGAAGCTCGTGGCATGCCCTACCTGCACGAGTCTGAAGCCTGTGATTAGCCGTG  
 TCTTTGAGGAGAAGAAGTACATGGAGCTGGATCCCTGCAAGATGGACCTGGGCCGACCCGGAGGATCTC  
 CTCAAAGGCGCACTCTCGGAGGAGCAGATGCGGGAGACCAGCCTGGGGCTGCTGACGGGTACCTGGGG  
 CCCATCGTGGACGCCATCGTGGGCTCCGTGGGGCGCTGCCCGCCCGCATGCGCCTCGCCTTCAAGCAGC  
 TGCACCGCGAGTGGAGGAGCGTTCACCCAGGCGCAGCACCAGGATGTGAAGTACCTGGCCATCAGTGG  
 ATTTCTTCTTTCGATTCTTCGCACCTGCCATCCTTACCCAAAGCTGTTTGACCTTCGGGACCAACAC  
 GCGGACCCCGACTAGCCGCTCACTGCTGTTGCTTGCCAAGGCTGTGCAGAGCATTGGAACCTGGGCC  
 AGCAGCTGGGCCAAGGCAAGGAAGTGTGGATGGCCCCCTGCACCCCTTCTGCTGCAGTGTGTCTCAG  
 TGTGAGAGACTTCTGGACCGGCTGGTGGATGTGGATGGGGATGAAGCTGGTGTCCAGCCAGGGCCCTG  
 TTCCCGCCCTCGGCCATTGTTTCGAGAAGGCTATCTGCTGAAGCGCAAGGAGGAGCCTGCCGCCCTGGCCA  
 CGCGCTTTGCCTTCAAGAAGCGCTACGTCTGGCTCAGCGGGGAGACCCTCTCCTTCTCAAGAGTCCCTGA  
 GTGGCAGATGTGTCACTCCATCCCGTGTCTCACATCCGCGCCGTGGAGCGCGTAGACGAGGGCGCCTTC  
 CAACTGCCCCACGTGATGCAGGTGGTGCAGCAGGACGGCACGGGGGCGCTGCACACCACCTACCTCCAGT  
 GCAAGAATGTGAATGAGCTCAACCAGTGGCTCTCGGCCTTGCAGCAAGGCCAGCGCCCCCAACCCGAACA  
 GCTGGCCGCTGCCACCCCGGTGCCTTCCGAGCGCGCTGGACCTGCTGCCTCCAGGCTGAGCGCTCA  
 GCCCGCGCTGCAGCCGTACACTCAGCTGTACCCTGGGGGACTGGAGTGACCCACTGGATCCTGATG  
 CTGAGGCCAGACAGTGTATCGGACGCTGCTCCTGGGGCGGACCAGCTCAGGCTGAAATTAAGGAGGA  
 TTCTAACATGGATACTACTCTGGAGGCAGACAGGGGCTGTCTGAGGCTCTGGCCCGCAAGAGCA  
 GCAACTGCCCGCCTGCTGGAGGTGCTCGCAGACCTGGATCGTCCACGAGGAGTTCAGCAGCAGGAGC  
 GAGGGAAGGCGGCCCTGGGCCCTTGGCCCC

**ACGCGT**ACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

## Protein Sequence:

&gt;RC210812 protein sequence

Red=Cloning site Green=Tags(s)

MAKSSSLNVRVVEGRALPAKDVSGSSDPYCLVKVDDEVVARTATVWRSLGPFWGEEYTVHLPDFHQLAF  
YVLDEDTVGHDDIIGKISLSREAITADPRGIDSWINLSRVDPDAEVQGEICLSVQMLEDGQGRCLRCHVL  
HARDLAPRDISGTSDFARVFWGSQSLETSTIKKTRFPHWDEVLELREMPGAPSPLRVELWDWDMVGKND  
FLGMVEFSPKTLQKPPKGWFRLLPFPRAEEDSGGNL GALRVKVR LIEDRVLP SQCYQPLMELLMESVQG  
PAEEDTASPLALLEELTLGDCRQDLATKLVKFLGRGLAGHFLDYLTRREVARTMDPNTLFRSNSLASKS  
MEQFMKLVGMPYLHEVLKPVISRVFEEKKYMELDPCKMDLGRTRRISFKGALSEEQMRETSGLLLTGYL  
PIVDAIVGSGVGRCPPAMRLAFKQLHRRVEERFPQAEHQDVKYLAISGFLFLRFFAPAILTPKLFDLRDQH  
ADPQTSRSLLLLAKAVQSIGNLGQQLGQKELWMAPLHPFLLQCVSRRVDFLDRLVDVDGDEAGVPARAL  
FPPSAIVREGYLLKRKEEPAGLATRFAFKKRYVWLSGETLSFSKSPWQMCHSIPVSHIRAVERVDEGAF  
QLPHVMQVVTQDGTGALHTTYLQCKNVNELNQWLSALRKASAPNPNKLAACHPGAFRSARWTCCLQAERS  
AAGCSRTHSAVTLGDWSDPLDPDAEAQTYYRQLLLGRDQLRLKLEDSNMDTTLEADTGACPEVLARQRA  
ATARLLEVLADLDRAHEEFQQQERGAALGPLGP

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

## Restriction Sites:

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_004658

**ORF Size:** 2412 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:**

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\\_004658.1](#), [NP\\_004649.1](#)

**RefSeq Size:** 3841 bp

**RefSeq ORF:** 2415 bp

**Locus ID:** 8437

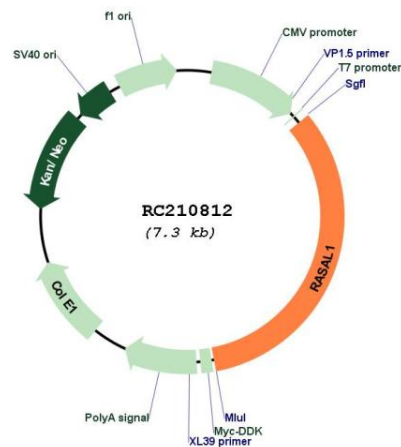
**UniProt ID:** [O95294](#)

**Cytogenetics:** 12q24.13

**MW:** 90 kDa

**Gene Summary:** The protein encoded by this gene is member of the GAP1 family of GTPase-activating proteins. These proteins stimulate 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. This particular family member contains domains which are characteristic of the GAP1 subfamily of RasGAP proteins but, in contrast to the other GAP1 family members, this protein is strongly and selectively expressed in endocrine tissues. Alternatively spliced transcript variants that encode different isoforms have been described [provided by RefSeq, Jul 2010]

### Product images:



Circular map for RC210812