

## Product datasheet for MR220421

### Ralgapa1 (NM\_001003719) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ralgapa1 (NM\_001003719) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Ralgapa1  
**Synonyms:** 2310003F20Rik; 4930400K19Rik; AI563624; Garnl1; GRIPE; mKIAA0884; Tulip1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-Myc-DDK (PS100007)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MR220421 representing NM\_001003719  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGGATCGCC

ATGTTCTCTAAGAAGCCGCACGGGGACGTGAAGAAGTCCACCCAGAAGGTGCTGGACACCAAGAAGGACG  
 CGCTGACCCGCTCAAGCACCTGCGCATCGTCAGAAATGCAGAATCTATTGACCTTAAACAGTTTTT  
 TGACCAACATTTTTACATATACTATGTGTTTTTAAAAATTTGTGACTATTGAAGCTAGCTTAAAC  
 CAGAAAGGTCACAAGTCTCAAAGAGAGGAATTAGATGCTATACTTTTTATTTTTGAGAAAATTTACAAC  
 TTCTTCCAGAAAGAATTCATCAGCGATGGCAATCCATAGTATTGGGTTGATTTAAAGAACTACTGCA  
 CACAGGAACTCCTTAAAGATCAGACGGGAAGGTGTCGTCCTTCTTGTATGGTTGCAAGCTCTTCAG  
 GATAACTGCAGCAAAGAACAGCTCTGGATGTTTTCATGCTTGATCCCTGGATTCTCAGCACCACAATCCG  
 AATATGGACCTCGGACTTTAGATAATCTTATTAATCCTCCACTCAGCCTTCAAGAACTCAAGTAACTAT  
 AGAGGAAGTCACTCCTCTGTCCGCCACAGTCAGGAGATAAAGGACAAGAAGACCTCACAAGCTATTTT  
 CTTGAAGCACTTTTAAATACATAGTAATTCAGGTAAGGTTTACTTGCCTTATTTTTCCAAACATTTG  
 AAAGGGGATTTTCATTTTTGTTTTCACATTTAAGAAGTTTTACTTGCCTTATTTTTCCAAACATTTG  
 CAAGGAGAATAGTTTGTATCATCCTGTACTTGATATCCACAGATCAGACCAAAGCCTCATTATGTGATG  
 ATAAAGAAGGATGCTGAAACCAATGAAACAATATTGTACAAAAGAGCCTTTCATCCAGGCTCGGGTTA  
 TTGTCATTGCTGGCTGTTTTCTTCTGGCTGGAGCCAAAACCATTCAGGACCTAATATTCTGGGAT  
 GGAAGGTGAAGTCTTCCAAAGAATATTAGAGAGCAGCTGCTAGTTTGGTTTCCAGAGAAGAAAGCAAA  
 AATGATACTGTTGATAAAGTAGACAAGTCTGCAGAGCCTGAGCAGTCTCATTCCAACACAAGCACTCTCA  
 CGGAGCGAGAGCCTAGCTCTCCAGTCTCTGCAGCATCGACGAAGAACATCTCACAGACATCGAAATTTG  
 TCGCAGAGTGTTCATCTAAGAGAAGCAATGTAACCTTTGTCACAGAGATATTTTCGTCAGGCATTTTTA  
 TTACCAATTTGTGAAGCAGCAGCTATGAGAAAAGTGGTGAAGTGTATCAAGAATGGATTCAACAAGAGG  
 AAAAGCCTTTGTTATGCAAGAGCCTGAGGACACTGCGATCACTTGTTCAGATATACCCTGCAGCGAAAC  
 TGTTGCAGACCATGACAGTGCAATAGAAGATGGAGAGAAAAGAGAAGAGGAAAATGGGACCAGTACTTCT



[View online »](#)

GAACATGTTTCGCAATTCTAGCTGGACAAAAATGGTTCCTACCAAGAAGCTTTTCATGTCTGTGAAGAAG  
 CCACAGAACAGAAATATTCAAGCTGGCACTCAGGCCGTTTTGCAGGTGTTTATTATAAACTCATCGAACAT  
 ATTTCTTCTTGAACCTGCAAAATGAAATAAAGAATCTTCTGGATGAGCATACAGATATGTGTAACGCATT  
 CTTAATATTTATCGATACATGGTTGTGCAAGTATCAATGGACAAAAAGACCTGGGAACAGATGCTGCTCG  
 TGCTGCTCAGAGTCACGGAGTCCGTAAGTGTGTCACAAGCTTTCTGCAGTTCAGGGGAAAAA  
 AAGCATGACCCCTGGCGGGTGCAGTTGCAGGACCCTTTTTAGACTCTCATTGTTGCCTGGATCAAAGCA  
 AATCTAAATGTATACATTTCTCGAGAATTTGGGATGACTTACTTTCCGGATTGTCATCATTGACCTATT  
 GGAAGAATTGGCCACTGAGTGGTCACTGACCATGGAGACACTGACTAAAGTTTTGGCTAGAAAATTATA  
 TAGTTTGGATCTCAGTGATTTGCCATTGGATAAGCTCAGTGAACAGAAACAAAAAGCACAAGGGAAAA  
 GGAGTTGGACACGAATTTAGAAAAGTTTTCAGTTGACAAGTCAATTTCTAGAGGATGGAGTCGCGATCAGC  
 CTGGCCAGGCACCTATGAGACAGAGAAGTGCAACGACCCTGGCTCCCCAGGAAGTGAAGAAGCCAGGAG  
 TATAGTACGGCAAAAACTGTTGATATTGATGATGCTCAAATCCTTCCCCGCTCAACCAGAGTCAGACAT  
 TTTTCACAGAGTGAAGACACTGGAAATGAAGTTTTTGGTGTTCATGAGGAACAGCCACTGCCTCGAA  
 GTAGCAGCACTTCTGACATCTTGAACCATCACTGTTGAGCGAGCCAAAGTAAATAAGAGGACACGAG  
 CCCCAACTGCCTCCTTAATAGTGAAGTGGTGGCAACAGCGCAATGTTCTGACCTGATGGATGAG  
 TTTATCGCAGAGCGACTTCGAAGTGGCAATGCCTCGACTATGACAAGAAGGGGAGTAGTCCAGGACGCC  
 TTGAAATCCCAGAACCTCCCTGATATTCTAAACAAGCAGAACCAGATGCGGCCTGTTGATGACCTGG  
 TGTACCCTCCGAATGGACGTCTCCAGCCAGTGCAGGGAGCAGTGTCTCATGAGCTCAGATGCTACTCG  
 GATTCTTTCAGTGCCTCCAGTGTGAGGGACGAAAAATTTGACAACCTTTGGCTTCGGGACTGACATTGGGA  
 TCCCATCTTCTGCTGATGTGGATTTAGTTTCTGGCCATCATCAAAGCACTGAGGAGCAGGAAGTGGCCAG  
 CCTAATACGCTTCAATTTAGATTCAGAAACAAGCAGCCTTAATCAGCAAGCCTTCTGTCAGAAGTTGCA  
 ACCGTTACTGGTTCAGAAAAGTCTTCCCCGTTTCACTCAGCTCTGGGATCCAGGTGCGAGACCCCTCCC  
 CATCTACACTGAGCAGAGCTCACATAGAACAAGGACCTACAGCTCGATGAGAAGCTCCACCACCTGT  
 TCTTCAGACGCCGATGACCTAGAAAACAGTGAATTTCCATCTGAATGTTGTAGCGTGTGACAGGAGGT  
 ACTCTCACTGGGTGGCATGCTGATGTTGCTACTGTTATGTGGCGAGAATGCTGGCATTGTTGGGAGATG  
 TCAATGCTATTATGGATCCTGAAATACATGCTCAAGTTTTGATTACCTCTGTGAACCTTTGGCAGAATCT  
 AGCCAAGATCAGAGATAACCTTGGCATTTCAGCTGACAACCTGACTTCCCCTTCTCCACCCGTCCTGATT  
 CCTCCACTAAGAATTTTACACCTTGGCTTTTTAAGGCAACCATGTTGACTGATAAGTATAAACAAGGTA  
 AATTACATGCATATAAATTTATTTGTAATACAATGAAGAGAAGACAAGATGTATCTCCAATAGAGATTT  
 TTTAACACATTTCTACAATATAATGCATTGTGGATTGCTTCATATTGACCAGGACATTGTCAATACGATC  
 ATCAAGCACTGCTCACCTCAGTTTTTTTCACTCGGTTTGCCTGGGGCCACGATGCTTATTATGGATTTTA  
 TTATAGCAGCTGGGAGAGTGGCTTCTTCGGCTTTTCTTAATGCACCAAGAGTGAAGACACAAGTTCTTCT  
 GGGATCTTTAGTTTGGCTTTCCCACTTATATTGTGAATTGCTGCTCCTCATCCCAACATTCCTGATATT  
 GCTGTGCTCAATTTACAGATGTTAAGGAACTTATAATTAATAAACTGTATTAAGCTCGGCAAGAGATGAGC  
 CCTCTGGTCTGCACGATGTGTAGCACTTTGCAGTTTAGGATTTTGGATTTGTGAAGAATTAGTCCACGA  
 ATCTCATCATCTCAAATTAAGAAGCACTGAATGTAATTTGTGTTTTCAATAAAGTTTACTAATAAAAA  
 GTTGCCACGTCGCTGTAACATGCTTCACATGCTGGTCACTATGTCCCTAGACTTCAGATTACCAGC  
 CGCAGTCTCCCTGAAAATTTTACAGATCTAATAGCAACTATCACCCACCTTTTGGCAAGTACAGAAGC  
 TTCATCATATGAAATGGACAAGAGTTGGTTGTCTCATTACTTTTGCCTTCTGGACTGGATCATGGCC  
 TTACCTTTAAAGACACTGCTCCAACAGTCCATGCTACAGGAGCAGAAAATGATAAGACCGAAAAGTCTG  
 TTCTCAACTGCATTTATAAGGATTACATGGGTGTGCTATGGAGCGCAAAGTTTTAGCAATCCCAAGTA  
 CTTTCCAATAAGCCTTTCTGATTTGGCATCTGTAGATTATGATCCGTTTATGCATTTGAAAAGTCTGAAA  
 GAACCTGAACCTTTACACTCTCCAGATTAGAGCGGTCTTCTAAACTGCAGCCTGTGACAGAAGTAAAA  
 CTCAGATGCAACAAGGATTAATCTCTATAGCAGCCGTAAGTATTACCCATCTGGTGAATCACTTGGG  
 CCATTATCCAATGAGTGGTGGTCTGCTATGCTAACAAGTCAAGTGTGTAAGTATCATGACAATCATTAC  
 AGTGAAGTACTGAACCTTCTCCTGAGCTTTTGAAGTCAAACATCCAGTTCTTTGTGCTGAATAATA  
 CAACCTTAGTGTCTGTATCCAGATAAGATCGGAAGAGATATGCCTGGAGGAGTCTAGCTGCTGGCCT  
 TGTGTGACGCAACTCAAATGTTAGAATCATAGTACGTGATCTCTGGAAGTACTCATGGGATTCTGCC  
 ATACTGTATGGACCACCCATTGTAAGTGGTTTGCCTGAACCTACATCTTTCATACTTTCAATGTCTGACC  
 AAGAGAAACCGGAAGAGCCTCTACATCTAACGAATGCTTAGAAGACATCGCAGTAAAAGATGGGCTTTC  
 TCTCCAGCTTAGAAGATTTAGAGAACTGTACCAACTTGGTCTACGATACGAGAGGAAGAAGATGTTCTT  
 GACGAGCTCCTGCAGTATTTAGGCACTACAAGTCTGAGTGTTCACAGAGAACGGGAATCTCCCTCAATG

TTCTGCTCCACAGCCTCTGTGCATTTCTGAAAAACAGGAGAATGATGTCATTAATGCTATCCTTAAGCA  
ATACACGGAAGAAAAAGAGTTTGTAGAGAAGCACTTTAATGACTTAAACATGAAAGCCTCAGAACAAGAT  
GAGCCAACACCTCAGAAACCTCAGTCAGCTTTTTATTACTGCAGATTGCTTCTTAGTATATTGGGAATGA  
ATTCTGGGACAAACGGAGGAGCTTTCATCTCTTGAAGAAAAATGAAAAGCTGCTCAGAGAACTTAGGAA  
CTTGGATTCAAGGCAATGCCGAGAGACACACAAGATTGCAGTATTTACGTTGCTGAAGGACAAGAAGAT  
AAATACTCCATTCTACCAATATAGGAGGAAGCCAAGCATATGAAGATTTTGTAGCTGGCCTTGGTTGGG  
AGGTAACCTTACAACCCTGTGGCTTCATGGGAGGCCTTCAGAAGAACAGAAGCACTGGACTGACCAC  
TCCCTATTTTGTACCTCGACAGTAGAAGTAATTTTCATGTATCTACACGAATGCCTTCTGATTCTGAT  
GACTCTTGACCAAAAAATTGAGACATCTAGGAAATGATGAAGTGCACATTGTTTGGTCAGAACATACTA  
GAGACTACAGGAGAGGAATTATTCCTACTGAGTTTGGTGTATGTCCTCATTGTAATATACCAATGAAAA  
CCACATGTTTCAGTATCCAGATCATGAAAAACCAGAGGTTCCCTTCTTTGGTCCACTTTTTGATGGTGCT  
ATTGTGAATGAAAAAGTTCTGCCATTATGGTTCGATCCACAGCAATAAATGCTAGCCGTGCTCTGAAAT  
CACTGATTCCATTGTATCAAAATTTCTATGAGGAGAGAGCACGGTACCTGCAGACAATTGTCCAGCACCA  
TTTAGAGCCAACAACATTTGAAGACTTTGCAGCACAGTTTTCTCTCCAGCTCCCTACCATCATTTCCCT  
GCTGACGCAGTTGGATCCTACCCAGAGATTCCACCCAGTGACGCTGCCCCAGCAGCACAGGTAGACGGGG  
CTGACCTGGCCTCTCCATGTCTCTCGAACTAGCAAAAGCCGCATGTCCATGAAGCTGCGTCCGTCTC  
TGGCTCAGCCAATAAATCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR220421 representing NM\_001003719  
 Red=Cloning site Green=Tags(s)

MFSKPKPHGDVKKSTQKVLDTKKDALTRLKHLRIVENAESIDLKQFFDQHFHSHIYYVFFENFVTIEASLK  
 QKGHKSQRELDAILFIFEKILQLLPERIHQRWFHSIGLILKLLHTGNLTKIRREGVRLFLWLQALQ  
 DNCSKEQLWMFSLIPGFSAQSEYGPRTLNDL INPPLSLQETQVTIEEVTPLVPPQSGDKGQEDLTSYF  
 LEALLKYIVIQVKSLEWKNKENQERGFSLF SHFKKFYLPYIFPNICKENSLYHPVLDIPQIRPKPHYVM  
 IKKDAETNETIYCTKEPFIQARVIVIRWLVSFWLEPKPHSGPNIPGMEGEVLPKNIQRAAASLVSREESK  
 NDTVDKVDKSAEPEQSHSNTSTLTEREPSSSLCSIDEEHLTDIEIVRRVFSKRSNVNFVTEIFRQAF  
 LPICEAAAMRKVVYVYQEWIQEKEKPLFMQEPEDTAITCSDIPCSETVADHDSAIEDGEKREEENGSTSTS  
 EHRNSSWTKNGSYQEAHFVCEEATEQNIQAGTQAVLQVFIINSSNIFLLEPANEIKNLLDEHTDMCKRI  
 LNIYRYMVVQVSMDDKTWEQMLLVLLRVTESVLKMSQAFLQFQGGKSMTLAGRLAGPLFQTLIVAWIKA  
 NLNVYISRELWDDL SVLSSLTYWEELATEWSLTMETLTKVLARNLYSLDLSDLPLDKLSEKQKQKHKGK  
 GVGHEFQKVSVDKFSRGSWRDQPGQAPMRQRSATTTGSPGTEKARSIVRQKTVDIDDAQILPRSTRVRH  
 FSQSEDTGNEVFGALHEEQPLPRSSSTSDILEPFTVERAKVNKEDTSPKLPPLNSETGGNSANVPDLME  
 FIAERLRSNASTMTRRGSPPGSLIIPKDLPDILNKQNMVDDPGVPSSEWTPASAGSSDLMSSDSHS  
 DSFAFQCEGRKFDNFVGTIDIGIPSSADVLDLGSQHHQSTEEQEVASLTLHLDSETSSLNQAFSAEVA  
 TVTGSESASPVHSALGSRSQTPSPSTLSRAHIEQKDLQLDEKLHHSVLQTPDDLEISEFPSECCSVMAGG  
 TLTGWHADVATVMWRMLGILGDVNAIMDPEIHAQVFDYLCWQNLAKIRDNLGISADNLTSPSPVLI  
 PPLRILTPWLFKATMLTDKYKQKGLHAYKLCNTMKRRQDVSPNRDFLTHFYNIMHCGLLHIDQDIVNTI  
 IKHCSPQFFSLGLPGATMLIMDFIIAAGRVAASSAFLNAPRVEAQVLLGSLVCFPNLYCELPAHPNIPDI  
 AVSQFTDVKELI IKTVLSSARDEPSGPARCVLCSLGIWICEELVHESHHPQIKEALNVCVSLKFTNKT  
 VAHVACNMLHMLVHYVPRQLIHQPQSPKIIQIL IATITHLLPSTEASSYEMDKRLVVSLLLCLLDWIMA  
 LPLKTLQLQPVHATGAENDKTEKSVLNCIYKVLHGCYVGAQSFSPKPYFPIISDLASVDYDFPMHLES  
 LK EPEPLHSPDSERSKLPVTEVKTQMQQGLISIAARTVITHLVNHLGHYPMSGGPAMLT SQVCENHDNHY  
 SESTELSPELFESPNIQFFVLNNTTLVSCIQIRSEESMPGGGLAAGLVSANSNRIIVRDL SGKYSWDSA  
 ILYGPPIVSGLPEPTSFILSMSDQEKPEEPPTSNECLEIAVKDGLSLQLRRFRETVPWTSTIREEDVL  
 DELLQYLGTTSPECLQRTGISLNVPAQPLCISEKQENDVINAILKQYTEEKEFVEKHFNDLNMKASEQD  
 EPTPQKQSAFYCRLLLSILGMNSWDKRRSFHLLKKNKLLRELRLNDSRQCRETHKIAVFVYVYAEQED  
 KYSILTNIGGSQAYEDFVAGLGWEVNL TNHCGFMGGLQKNRSTGLTTPYFATSTVEVIFHVSTRMPSDSD  
 DSLTKKLRHLGNDEVHIVWSEHTRDYRRGIIPTEFGDVLIVIYPMKNHMF SIQIMKKPEVPFFGPLFDGA  
 IVNGKVLPIVVRSTAINASRALSLIPL YQNFYEERARYLQTI VQHLEPTTFEDFAAQVFSAPYHHFP  
 ADAVGSYPEIPPSDAAPAAQVDGADLASPMSPTSKSRMSMKLRRSSGSANKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja2072\\_b02.zip](https://cdn.origene.com/chromatograms/ja2072_b02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001003719

**ORF Size:** 6249 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001003719.2](#), [NP\\_001003719.1](#)

RefSeq Size: 7891 bp

RefSeq ORF: 6252 bp

Locus ID: 56784

UniProt ID: [Q6GYP7](#)

Cytogenetics: 12 C1

MW: 234.7 kDa

**Gene Summary:** Catalytic subunit of the heterodimeric RalGAP1 complex which acts as a GTPase activator for the Ras-like small GTPases RALA and RALB (By similarity). May interact with the HLH region of TCF3/isoform E12.[UniProtKB/Swiss-Prot Function]