

## Product datasheet for **RR202861**

### Rasgrf2 (NM\_053721) Rat Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Rasgrf2 (NM\_053721) Rat Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: Rasgrf2  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 Cell Selection: Neomycin  
 ORF Nucleotide Sequence: >RR202861 representing NM\_053721  
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC**GGCGC**  
**GCCC**

ATGCAGAAGAGCGTGCCTACAACGAGGGGCACGCCCTGTACCTGGCCTTCTGGCGCGCAAGGAGGGCA  
 CCAAGCGCGGTTTCTGAGCAAAAAGGCTGCCGAGGCGAGCCGCTGGCAGGAGAAGTGGTTCGCTCTCTA  
 TCAGAATGTGCTCTTTACTTCGAAGGCGAACAGAGCGGCCGCCAGCGGCATGTACCTCTAGAGGGC  
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 ACAAACAGTATTACTTCACTGTCTTTTGGTACGAAGGTCAGAAACCACTGGAGCTGCCTGTGAGGA  
 GGAGCAAGCAGGGAAAGAGTGGATGGAGGCCATTACCAAGCCAGTTACGCAGACATTTTGATTGAGAGG  
 GAAGTGTAAATGCAAAAGTACATTCATCTAGTTTCAGATTGGAGACAGAAAAAATTGCTGCTAACCAAC  
 TCCGACATCAACTCGAAGATCAAGATACCGAAATTGAAAGACTTAAATCAGAGATTGTTGCTTAAATA  
 GACCAAGGAACGGATGCGCCGTATCATACCCATCAAGAGGAGGAGGATCCAGACATCAAGAAGATCAAG  
 AAGTTCAGAGCTTCATGAGAGGGTGGCTGTGCAGGAGGAAGTGAAGACCATCGTTCAGGACTACATTT  
 GTTCCCCCATGCTGAGAGCATGAGGAAGAGGAACCAGATTGTCTTACGATGGTGGAGGCCGAGTCAGA  
 ATATGTGCACCAGCTCTACATCCTGGTGAACGGTTTCTCAGGCCCTGCGCATGGCAGCCAGCTCCAAG  
 AAGCCCCCATTAGCCATGATGATGTCAGCAGCATTTTCTCAACAGTGAACAATCATGTTTCTTCATG  
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 GAACTGTCAGAGTGTGACGACGAAGTCAAGTACACCGAAAACATACGGAATACTTGTCCATTGAGA  
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 TGATGACACCAAAGGTCCTGGTCACATGTTCCGACATCTGGATTTTAAATCGTCTGGAGCCTCCTGAT



GCTGCCCCGTTCACTGTGGTCTTCTAGCACCTTCGCGCCAGGAGAAGGCTGCCTGGATGAGCGACATCA  
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 CAGGAGACTCCACAGACATGTCACCTTGTAGATCTCCCTCAACCCTCCCCGGCACCTCCGATATCGCCA  
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 CTCTGTGGAACAACTTCAAGAAGTGTCTGCTGTAAGGAAGATTTAAAACCTCAGAGAACTCAAA  
 AAAGTGAACCCCGAGCTGTCCCTTACCTGGGATGACTTGACAGACCTGGCATTTCATTGAAGAAGGG  
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 CAAAGCCCTTGCATAGATGAAGATACACTCTATGAGCTGCTCAAAAATTGAACCTCGACTCCCTGCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR202861 representing NM\_053721  
 Red=Cloning site Green=Tags(s)

MQKSVRYNEGHALYLAFLARKEGTGRGFLSKKAAEASRWHEKWFALYQNVLFYFEGEQSGRPAGMYLLEG  
 CSCERTPAPPRTNAGPAGARDALDKQYFTVLFHGGQKPLELRCEEEQAGKEWMEAIHQASYADILIER  
 EVLMQKYIHLVQIVETEKIAANQLRHQLEDQDTEIERLKSEIVALNKTKERMRPYHTHQEEEDPDIKKIK  
 KVQSFMRGWLRRKWKTIQDYICSPHAESMRKRNIQIVFTMVEAESEYVHQLYILVNGFLRPLRMAASSK  
 KPPI SHDDVSSIFLNSETIMFLHEIFHQGLKARLANWPTLVLADLFDILLPMLNIYQEFVRNHQYSLQVL  
 ANCKQNRDFDKLLKQYEGNPACGRMLETFLTYPMFQIPRYIITLHELLAHTPHEHVERKSLEFAKSKLE  
 ELSRVMHDEVSDTENIRKNLAIERMIVEGCDILLDTSQTFIRQGSLLIQVPSVERGKLSKVRGLSLKKE  
 GERQCFLFTKHLICTRSSGGKLLHLLKTGGVLSLIQCTLIEEPDTSDDDTKGGPHMFGHLDFKIVVEPPD  
 AAPFTVLLAPSRQEKAAWMSDISQVDNIRCNGLMTIVFEENSKVTVPHMIKSDARLHKDDTDICFSKT  
 LNSCKVPQIRYASVERLLERLTDLRFLSIDFLNTHYRIFTTAAVVLGKLSDIYKRPFTSIPVRSLEL  
 FFATSQNNREHLVDGKSPRLCRKFSPPPLAVSRTSSPVRARKLSLTSSLNSRIGALDLTSSSSSSPTT  
 TVHSPAASPPHTAVPESAPADRAGDSTDMSPCRSPSTTPRHLRYRQPGGQVADSTHCAVSPASAFIAT  
 AAAGHGSPPGFNNERTCKEFIIRRTATNRVLNVLRHVWSKHSQDFELNNEKMNVLNLEEVLRDPDLL  
 PQERKATANILRALSQDDQDDIHLKLEDIIQMTDCPKAECFETLSAMELAEQITLLDHIVFRSIPYEEFL  
 GGQWMLDKNERTPYIMKTSQHFNEMSNLVAQIMNYADISSRANAIEKWWAVADICRCLHNYNGVLEIT  
 SALNRSAIYRLKKTWTKVSKQTKALMDKLQKTVSSEGRFKNLRETLKNCNPPAVPYLGMYLTDLAFIEEG  
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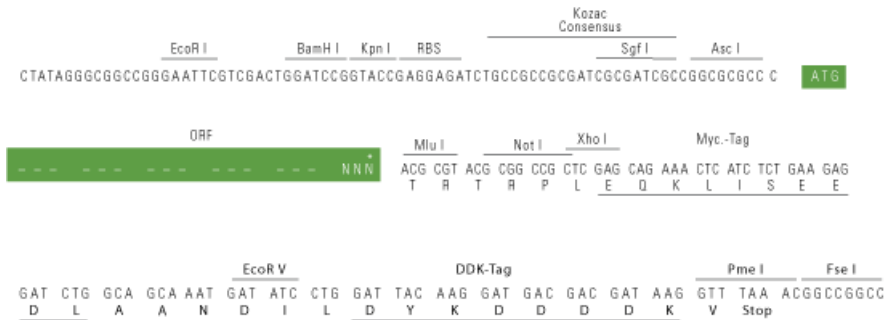
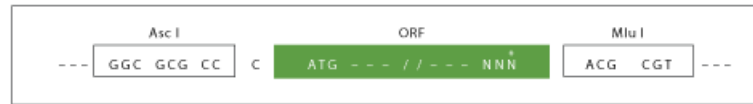
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

AscI-MluI

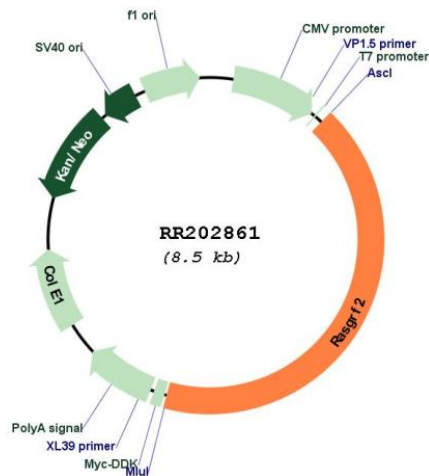
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



ACCN: NM\_053721

ORF Size: 3570 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\\_053721.1](#), [NP\\_446173.1](#)

RefSeq Size: 3573 bp

RefSeq ORF: 3573 bp

Locus ID: 114513

UniProt ID: [Q99JE4](#)

**Cytogenetics:** 2q12

**MW:** 135.8 kDa

**Gene Summary:** human homolog is involved in stimulating the conversion of the GDP-bound form of Ras into the active form [RGD, Feb 2006]