

## Product datasheet for **MG226786**

### Rasgrp2 (NM\_011242) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rasgrp2 (NM_011242) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rasgrp2
Synonyms:	Caldaggef1; CDC25L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MG226786 representing NM\_011242  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGACGAGCACTCTGGACCTGGACAAGGGCTGCACCGTGGAGGAGCTGCTCCGTGGTTGCATCGAAGCGT  
 TTGATGACTCCGGAAAGGTGCGAGATCCACAGCTAGTGGCATGTTTCTCATGATGCACCCTGGTACAT  
 ACCTTCCTCTCAGCTGGCTTCGAAACTGCTCCACTTCTATCAGCAATCCCAGGAGCAACTCCAATTCT  
 CTACAGATGAAAACGTGTCACTTGGTCAAGTACTGGATCTCAGCCTCCAGCAGAGTTCGACTTGAACC  
 CAGAGCTGGTGAACAGATCAAGGAGCTGAAGGCTCTGTTAGACCAAGAAGGGAACCGCAGGCACAGCAG  
 CCTCATCGACATCGAGAGTGTCCCTACCTACAAATGGAAGCGGCAGGTGACCCAGCGAACCTGTGGAA  
 CAGAAAAAGCGCAAGATGTCCTTGTGTTGATCACTTGGAGCCTATGGAGCTGGCAGAACATCTTACCT  
 ACCTGGAGTATCGTTCTTCTGCAAGATCTGTTCCAAGACTACCACAGCTTTGTGACTCATGGTCGCAC  
 CGTAGACAACCCGGTCTGGAGCGATTCATCTCCCTCTTCAACAGTGTCTCTCAGTGGGTCCAACATCATG  
 ATCCTCAGCAAGCCACAGCCACGCAGCGGGCGCTGGTATCACGCACTTCGTGCATGTGGCAGAGAGGC  
 TGCTGCAGCTGCAGAACTCAACACGCTGATGGCCGTCGTGGGAGGCCTGAGCCACAGCTCCATCTCAGC  
 CCTCAAGGAGACCCACAGCCACGTGAGCCCTGACACCATCAAGCTCTGGGAAGGTCTGACAGAACTAGTG  
 ACAGCTACTGGCAACTACAGCAACTACCGGCGCAGGCTGGCAGCCTGCGTGGGCTTCCGCTTTCCTATCC  
 TGGGAGTGCACCTCAAGGATCTAGTGGCTCTGCAGCTGGCTCTGCCTGACTGGCTGGACCCAGGTCCGGAC  
 CCGGCTCAATGGAGCCAAGATGAGGCAGCTTTCTGCATCTGGAGGAGTTGGCCATGGTGACAGCCTT  
 CGCCACCCGTACAAGCCAACCCGACCTGCTGAGCCTGCTCACGGTGTCCCTGGATCAGTATCAGACAG  
 AGGATGAGCTGTACCAGCTCTCACTGCAGCGAGAGCCACGCTCCAAGTGTCCGCAACAGCCCAACCCAG  
 CTGCACCCCGCTCCCGGCCCTGTGTTGGAAGAGTGGACCTCAGTTGCCAAGCCTAAGCTGGACCAA  
 GCCTTGGTGGCAGAGCACATTGAGAAGATGGTGGAGTCTGTGTTCCGGAACCTTGACGTGGATGGGGACG  
 GTCACATCTCCAGGAGGAGTTTCAGATCATCCGGGGCAACTTCCCTTATCTCAGCGCTTTGGGGACCT  
 GGACCAGAACCAGGATGGCTGCATCAGCCGGGAGGAGATGATTTCTACTTCTGCGCTCCAGCTCCGTG  
 CTGGGAGCCGCATGGGCTTCGTACACAACTCCAGGAGAGTAACCTGCTACGCCGGTTGCTGTCCGC  
 ACTGCAAAGCTCTGATCTGGGCATCTACAAGCAGGGCCTTAAATGTAGAGCTTGTGGTGTGAAGTCCCA  
 CAAGCAATGCAAAGAGCGCCTGTGAGTGAATGTGCGCCGAGGGCCAGAGTGTGAGCCTGGAGGGCTCT  
 GCACCCTCTCCCTACCCACACATACCCACCATCGGGCCTTCAAGCTTTCCCTGCCTCGCCAGGCAGGC  
 GCAGCTCTCGGCCTCCAGAGATCCGTGAAGAGGAGGTGCAGTCCGTGGAGGACGGAGTGTGGATCCCA  
 CTTA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG226786 representing NM\_011242  
 Red=Cloning site Green=Tags(s)

MTSTLDLDKGCTVEELLRGCIEAFDDSGKVRDPQLVRFMLMHPWYIPSSQLASKLLHFYQQSRKDNSNS  
 LQMKTCHLVRYWISAFPAEFDLNPDLAEQIKELKALLDQEGNRRHSSLIDIESVPTYKWKRVTRQNPVE  
 QKKRKMILLFDHLEPMELAEHLTYLEYRSFKILFQDYHSFVTHGCTVDNPNVLERFISLFNSVSQWVQLM  
 ILSKPTATQRALVITHFVHVAERLLQLQNFNTLMAVVGGLSHSSI SRLKETHSHVSPDTIKLWEGLTEL  
 TATGNYSNYRRRLAACVGFRRPILGVHLKDLVALQLALPDWLDPGRTRLNGAKMRQLFCILEELAMVTS  
 RPPVQANPDLLSLLTVSLDQYQTEDEL YQLSLQREPRSKSPTSPCTPPRPPVLEEWTSVAKPKLDQ  
 ALVAEHIEKMVESVFRNFDVDGDGHISQEEFQIRGNFPYLSAFGDLQNDQDCISREEMISYFLRSSSV  
 LGGRMGFVHNFQESNSLRPVACRHKALILGIYQGLKCRACGVNCHKQCKERLSVECRRRAQSVSLEGS  
 APSPSPTHHRAFVSFSLPRPGRSSRPEIREEEVQSVEDGVFDIHL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_011242

**ORF Size:** 1824 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\\_011242.3](#)

**RefSeq Size:** 2209 bp

**RefSeq ORF:** 1827 bp

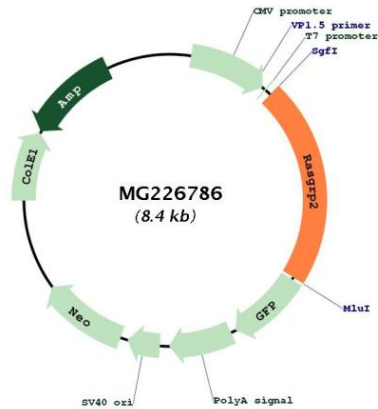
**Locus ID:** 19395

**UniProt ID:** [Q9QUG9](#)

**Cytogenetics:** 19 A

**Gene Summary:** Functions as a calcium- and DAG-regulated nucleotide exchange factor specifically activating Rap through the exchange of bound GDP for GTP. May also activates other GTPases such as RRAS, RRAS2, NRAS, KRAS but not HRAS. Functions in aggregation of platelets and adhesion of T-lymphocytes and neutrophils probably through inside-out integrin activation. May function in the muscarinic acetylcholine receptor M1/CHRM1 signaling pathway. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG226786