

Product datasheet for **MR226786**

Rasgrp2 (NM_011242) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rasgrp2 (NM_011242) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rasgrp2
Synonyms:	Caldaggef1; CDC25L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR226786 representing NM_011242
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGACGAGCACTCTGGACCTGGACAAGGGCTGCACCGTGGAGGAGCTGCTCCGTGGTTGCATCGAAGCGT
 TTGATGACTCCGGAAAGGTGCGAGATCCACAGCTAGTGGCGATGTTTCTCATGATGCACCCTGGTACAT
 ACCTTCTCTCAGCTGGCTTCGAAACTGCTCCACTTCTATCAGCAATCCCGGAAGGACAACCTCAATTCT
 CTACAGATGAAAACGTGTCACTTGGTCAAGTACTGGATCTCAGCCTCCAGCAGAGTTCGACTTGAACC
 CAGAGCTGGTGAACAGATCAAGGAGCTGAAGGCTCTGTTAGACCAAGAAGGGAACCGCAGGCACAGCAG
 CCTCATCGACATCGAGAGTGTCCCTACCTACAAATGGAAGCGGCAGGTGACCCAGCGGAACCTGTGGAA
 CAGAAAAAGCGCAAGATGTCCTTGTGTTGATCACTTGGAGCCTATGGAGCTGGCAGAACATCTTACCT
 ACCTGGAGTATCGTTCTTCTGCAAGATCTGTTCCAAGACTACCACAGCTTTGTGACTCATGGCTGCAC
 CGTAGACAACCCGGTCTGGAGCGATTCATCTCCCTTCAACAGTGTCTCTCAGTGGGTCCAACATCATG
 ATCCTCAGCAAGCCACAGCCACGCAGCGGGCGCTGGTATCACGCACTTCGTGCATGTGGCAGAGAGGC
 TGCTGCAGCTGCAGAACTCAACACGCTGATGGCCGTCGTGGGAGGCCTGAGCCACAGCTCCATCTCAGC
 CCTCAAGGAGACCCACAGCCACGTGAGCCCTGACACCATCAAGCTCTGGGAAGGTCTGACAGAACTAGTG
 ACAGCTACTGGCAACTACAGCAACTACCGGCGCAGGCTGGCAGCCTGCGTGGGCTTCCGCTTTCCTATCC
 TGGGAGTGCACCTCAAGGATCTAGTGGCTCTGCAGCTGGCTCTGCCTGACTGGCTGGACCCAGGTCCGGAC
 CCGGCTCAATGGAGCCAAGATGAGGCAGCTTTCTGCATCTGGAGGAGTTGGCCATGGTGACCAGCCTT
 CGCCACCCGTAACAAGCAACCCGACCTGCTGAGCCTGCTCACGGTGTCCCTGGATCAGTATCAGACAG
 AGGATGAGCTGTACCAGCTCTCACTGCAGCGAGAGCCACGCTCCAAGTGTGCGCAACCCAGCCACCCAG
 CTGCACCCCGCCTCCCGGCCCTGTGTTGGAAGAGTGGACCTCAGTTGCCAAGCCTAAGCTGGACCAA
 GCCTTGGTGGCAGAGCACATTGAGAAGATGGTGGAGTCTGTGTTCCGGAACCTTGACGTGGATGGGGACG
 GTCACATCTCCAGGAGGAGTTTCAGATCATCCGGGGCAACTTCCCTTATCTCAGCGCCTTTGGGGACCT
 GGACCAGAACCAGGATGGCTGCATCAGCCGGGAGGAGATGATTTCTACTTCTGCGCTCCAGCTCCGCTG
 CTGGGAGCCGCATGGGCTTCGTACACAACTTCCAGGAGAGTAACCTGCTACGCCGGTTGCTGTCCGC
 ACTGCAAAGCTCTGATCTGGGCATCTACAAGCAGGGCCTTAAATGTAGAGCTTGTGGTGTGAAGTCCCA
 CAAGCAATGCAAAGAGCGCCTGTGAGTGAATGTGCGCCGAGGGCCAGAGTGTGAGCCTGGAGGGCTCT
 GCACCCTCTCCCTACCCACACATACCCACCATCGGGCCTTCAAGCTTTTCCCTGCCTCGCCAGGCAGGC
 GCAGCTCTCGGCCTCCAGAGATCCGTGAAGAGGAGGTGCAGTCCGTGGAGGACGGAGTGTGATCCCA
 CTTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226786 representing NM_011242
 Red=Cloning site Green=Tags(s)

MTSTLDDLKGTVEELLRGCIEAFDDSGKVRDPQLVRMFLMMHPWYIPSSQLASKLLHFYQQSRKDNSNS
 LQMKTCHLVRYWISAFPAEFDLNPFLAEQIKELKALLDQEGNRRHSSLIDIESVPTYKWKQVTRQNPVE
 QKKRKMSSLFDHLEPMELAEHLTYLEYRSFCKILFQDYHSFVTHGCTVDNPVLERFISLFNSVSQWVQLM
 ILSKPTATQRALVITHFVHVAERLLQLQNFNTLMAVVGGLSHSSI SRLKETHSHVSPDTIKLWEGLTEL
 TATGNYSNYRRRLAACVGFRRPILGVHLKDLVALQLALPDWLDPGRTRLNGAKMRQLFCILEELAMVTS
 RPPVQANPDLLSLLTVSLDQYQTEDELYQLSLQREPRSSSPTSCTPPRPPVLEEWT SVAKPKLDQ
 ALVAEHIEKMVESVFRNFDVDGDGHISQEEFQIRGNFPYLSAFGDLQNDQDCISREEMISYFLRSSV
 LGGRMGFVHNFQESNSLRPVACRHKALILGIYKQGLKCRACGVNCHKQCKERLSVCERRRAQSVSLEGS
 APSPSPHTHHRASFSLPRPGRSSRPEIREEEVQSVEDGVFDIHL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9076_b04.zip

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

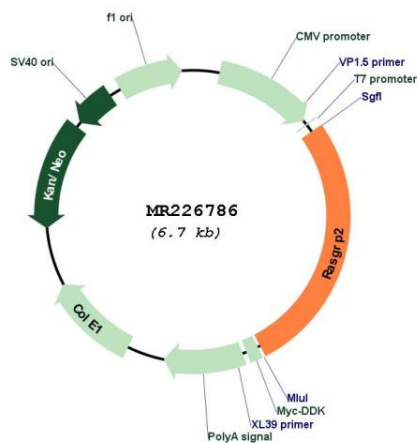
UniProt ID: [Q9QUG9](#)

Cytogenetics: 19 A

MW: 69.4 kDa

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 MR226786