

Product datasheet for **RG212719**

RASGRP2 (NM_001098671) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASGRP2 (NM_001098671) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RASGRP2
Synonyms:	CALDAG-GEFI; CDC25L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG212719 representing NM_001098671
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAGGCACCCTGGACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGTGCATCGAAGCCT
 TCGATGACTCCGGGAAGGTGCGGGACCCGAGCTGGTGCATGTTCTCATGATGCACCCTGGTACAT
 CCCCTCCTCTCAGCTGGCGGCCAAGCTGCTCCACATCTACCAACAATCCCGGAAGGACAACCTCAATTCC
 CTGCAGGTGAAAACGTGCCACCTGGTACAGTACTGGATCTCCGCCTCCAGCGGAGTTTGAAGTGAACC
 CGGAGTTGGCTGAGCAGATCAAGGAGCTGAAGGCTCTGCTAGACCAAGAAGGGAACCGACGGCACAGCAG
 CCTAATCGACATAGACAGCGTCCCTACCTACAAGTGAAGCGGCAGGTGACTCAGCGGAACCTGTGGGA
 CAGAAAAAGCGCAAGATGTCCTGTTGTTGACCACCTGGAGCCATGGAGCTGGCGGAGCATCTCACCT
 ACTTGGAGTATCGCTCCTTCTGCAAGATCTGTTTCAGGACTATCACAGTTTCGTGACTCATGGTCGAC
 TGTGGACAACCCCGTCTGGAGCGGTTTCATCTCCCTCTTCAACAGCGTCTCACAGTGGTGCAGCTCATG
 ATCCTCAGCAAACCCACAGCCCCGAGCGGGCCCTGGTATCACACACTTGTCCACGTGGCGGAGAAGC
 TGCTACAGCTGCAGAACTTCAACACGCTGATGGCAGTGGTTCGGGGCCTGAGCCACAGCTCCATCTCCCG
 CCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAACAGTG
 ACGGCGACAGGCAACTATGGCAACTACCGCGTTCGGCTGGCAGCCTGTGTGGGCTCCGCTTCCCGATCC
 TGGGTGTGCACCTCAAGGACCTGGTGGCCCTGCAGCTGGCACTGCCTGACTGGTGGACCCAGCCCGGAC
 CCGGCTCAACGGGGCCAAGATGAAGCAGCTCTTAGCATCCTGGAGGAGCTGGCCATGGTGACAGCCTG
 CGGCCACAGTACAGGCCAACCCGACCTGCTGAGCCTGCTCACGGTGTCTCTGGATCAGTATCAGACGG
 AGGATGAGCTGTACCAGCTGTCCCTGCAGCGGGAGCCGCTCCAAGTCTCGCCAACCCAGCCCGGACGAG
 TTGCACCCACCCACCCCGCCCGGTAAGTGGAGGAGTGGACCTCGGCTGCCAAACCCAAGCTGGATCAG
 GCCCTCGTGGTGGAGCACATCGAGAAGATGGTGGAGTCTGTGTTCCGGAACCTTGTACGTCGATGGGGATG
 GCCACATCTCACAGGAAGAATCCAGATCATCCGTGGGAACCTCCCTTACCTCAGCGCCTTTGGGGACCT
 CGACCAGAACCAGGATGGCTGCATCAGCAGGGAGGAGATGGTTTCTATTTCTGCGCTCCAGCTCTGTG
 TTGGGGGGGCGCATGGGCTTCGTACACAACTTCCAGGAGAGCAACTCCTTGCGCCCGTGCCTGCCGCC
 ACTGCAAAGCCCTGATCCTGGGCATCTACAAGCAGGGCCTCAAATGCCGAGCCTGTGGAGTGAAGTGCCA
 CAAGCAGTGAAGGATCGCTGTGAGTGTGCGCGCAGGGCCAGAGTGTGAGCCTGGAGGGGTCT
 GCACCCTCACCTCACCCATGCACAGCCACCATACCCGCGCTTACAGTCTCTCTGCCCGCCCTGGCA
 GCGGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTTCAT
 CCACTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG212719 representing NM_001098671
 Red=Cloning site Green=Tags(s)

MAGTLDLDKGCTVEELLRGCIEAFDDSGKVRDPQLVRFMMHPWYIPSSQLAAKLLHHYQQSRKDNSNS
 LQVKTCHLVRYWISAFPAEFDLNPDLAEQIKELKALLDQEGNRRHSSLIDIDSVPYKWKRVQVTRQNPVG
 QKKRKMILLFDHLEPMELAEHLTYLEYRSFKILFQDYHSFVTHGCTVDNPVLERFISLFNSVSQWVQLM
 ILSKPTAPQRALVITHFVHVAEKLLQLQNFNTLMAVVGGLSHSSI SRLKETHSHVSPETIKLWEGLTEL
 TATGNYGNRRRLAACVGRFPILGVHLKDLVALQLALPDWLDPARTRLNGAKMKQLFSILEELAMVTS
 RPPVQANPDLLSLLTVSLDQYQTEDEL YQLSLQREPRSKSPTSPTCTPPRPPVLEEWTSAAKPKLDQ
 ALVVEHIEKMSVFRNFDVDGDGHISQEEFQIRGNFPYLSAFGDLQDQDGCISREEMVSYFLRSSSV
 LGGRMGFVHNFQESNSLRPVACRHKALILGIYQGLKCRACGVNCHKQCKDRLSVECRRAQSVSLEGS
 APSPSPMHHHRAFSLSLPRPGRRSRPEIREEEVQTVEDGVFDIHL

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

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:	<ol style="list-style-type: none"> 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_001098671.2
RefSeq Size:	2284 bp
RefSeq ORF:	1830 bp
Locus ID:	10235
UniProt ID:	Q7LDG7
Cytogenetics:	11q13.1
Protein Pathways:	Chemokine signaling pathway, MAPK signaling pathway
Gene Summary:	The protein encoded by this gene is a brain-enriched nucleotide exchanged factor that contains an N-terminal GEF domain, 2 tandem repeats of EF-hand calcium-binding motifs, and a C-terminal diacylglycerol/phorbol ester-binding domain. This protein can activate small GTPases, including RAS and RAP1/RAS3. The nucleotide exchange activity of this protein can be stimulated by calcium and diacylglycerol. Four alternatively spliced transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jan 2016]