

Product datasheet for **RC217525**

RASGRP2 (NM_153819) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASGRP2 (NM_153819) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RASGRP2
Synonyms:	CALDAG-GEFI; CDC25L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC217525 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGGCACCCTGGACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGTGCATCGAAGCCT
 TCGATGACTCCGGGAAGGTGCGGGACCCGAGCTGGTGCATGTTCTCATGATGCACCCTGGTACAT
 CCCCTCCTCTCAGCTGGCGGCCAAGCTGCTCCACATCTACCAACAATCCCGGAAGGACAACCTCAATTCC
 CTGCAGGTGAAAACGTGCCACCTGGTACAGTACTGGATCTCCGCCTCCAGCGGAGTTTGAAGTGAACC
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 CAAGCAGTGAAGATCGCTGTGAGTGTGCGCGCAGGGCCAGAGTGTGAGCCTGGAGGGGTCT
 GCACCCTCACCTCACCCATGCACAGCCACCATCACCGCCTTACAGTCTCTCTGCCCGCCCTGGCA
 GCGGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTGACAT
 CCACTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217525 protein sequence
 Red=Cloning site Green=Tags(s)

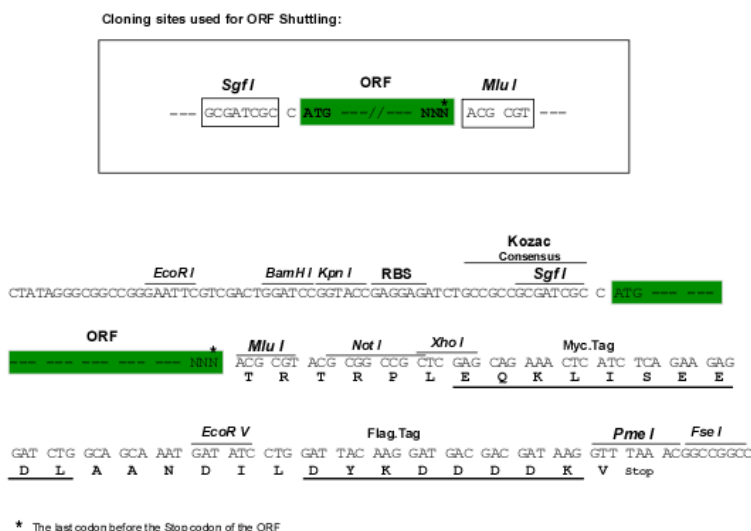
MAGTLDLDKGCTVEELLRGCIEAFDDSGKVRDPQLVRFMMHPWYIPSSQLAAKLLHIYQQSRKDNSNS
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 RPPVQANPDLLSLLTVSLDQYQTEDELYQLSLQREPRKSSPTSPTSPPPRPPVLEEWTSAAKPKLDQ
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 LGGRMGFVHNFQESNSLRPVACRHKALILGIYKQGLKCRACGVNCHKQCKDRLSVECRRAQSVSLEGS
 APSPSPMHHHRAFSLSLPRPGRRSRPEIREEEVQTVEDGVDFIHL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6610_a09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_153819

ORF Size: 1827 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.

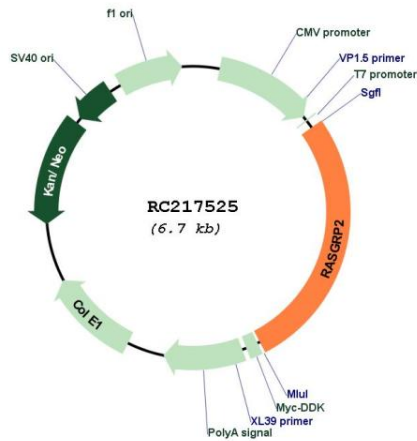
RefSeq: [NM_153819.1](#), [NP_722541.1](#)

RefSeq Size: 2310 bp

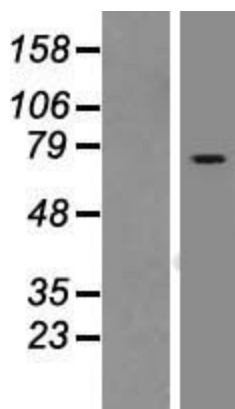
RefSeq ORF: 1830 bp

Locus ID: 10235
UniProt ID: [Q7LDG7](#)
Cytogenetics: 11q13.1
Domains: RasGEFN, RasGEF, EFh, DAG_PE-bind
Protein Pathways: Chemokine signaling pathway, MAPK signaling pathway
MW: 69.2 kDa
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]

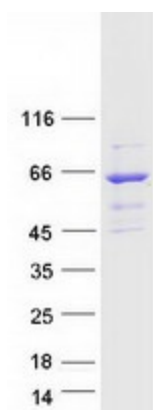
Product images:



Circular map for RC217525



Western blot validation of overexpression lysate (Cat# [LY406966]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217525 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RASGRP2 protein (Cat# [TP317525]). The protein was produced from HEK293T cells transfected with RASGRP2 cDNA clone (Cat# RC217525) using MegaTran 2.0 (Cat# [TT210002]).