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Product datasheet for RG219147

RASGRF1 (NM_002891) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASGRF1 (NM_002891) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RASGRF1
Synonyms:	CDC25; CDC25L; GNRP; GRF1; GRF55; H-GRF55; PP13187; ras-GRF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG219147 representing NM_002891
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGAAGGGGATCCGGCTGAATGATGGCCACGTCGCGTCCCTGGGACTGCTGGCGCGCAAGGACGGCA
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CAGTGCTTCCTGTTTTCTAAGCATCTGATTATCTGTACCAGAGGCTCTGGAGGGAAGCTTCACTTGACCA
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TACGAGTCTTCTCTCCGAATAGAACCAAAACTCCCCACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG219147 representing NM_002891
Red=Cloning site Green=Tags(s)

MQKGIRLNDGHVASLGLLARKDGTRKGYLSKRSSDNTKWQTKWFALLQNLLFYFESDSSSRPSGLYLLEG
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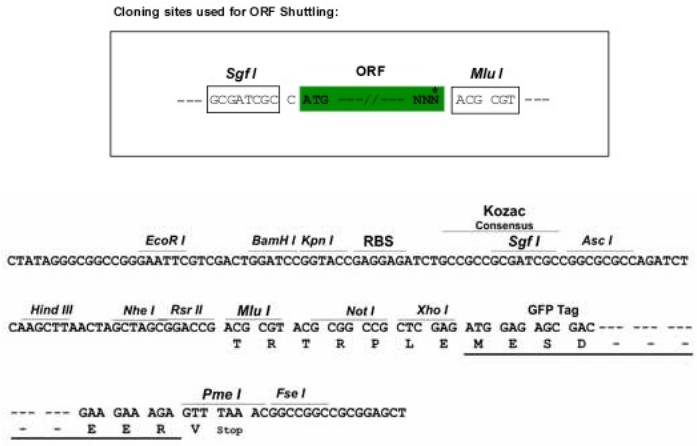
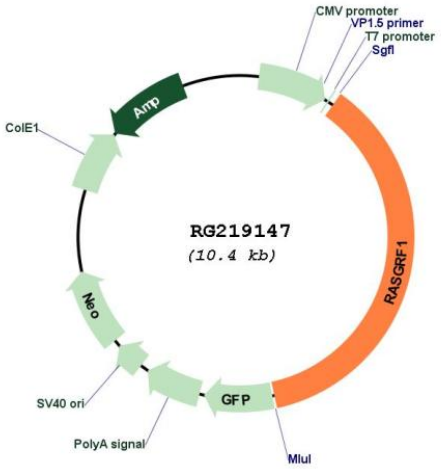
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_002891
ORF Size:	3819 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_002891.6
RefSeq Size:	4022 bp
RefSeq ORF:	3822 bp
Locus ID:	5923
UniProt ID:	Q13972
Cytogenetics:	15q25.1

Domains:	IQ, RhoGEF, RasGEFN, PH, RasGEF
Protein Families:	Druggable Genome
Protein Pathways:	Focal adhesion, MAPK signaling pathway
Gene Summary:	The protein encoded by this gene is a guanine nucleotide exchange factor (GEF) similar to the Saccharomyces cerevisiae CDC25 gene product. Functional analysis has demonstrated that this protein stimulates the dissociation of GDP from RAS protein. The studies of the similar gene in mouse suggested that the Ras-GEF activity of this protein in brain can be activated by Ca2+ influx, muscarinic receptors, and G protein beta-gamma subunit. Mouse studies also indicated that the Ras-GEF signaling pathway mediated by this protein may be important for long-term memory. Alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Mar 2009]